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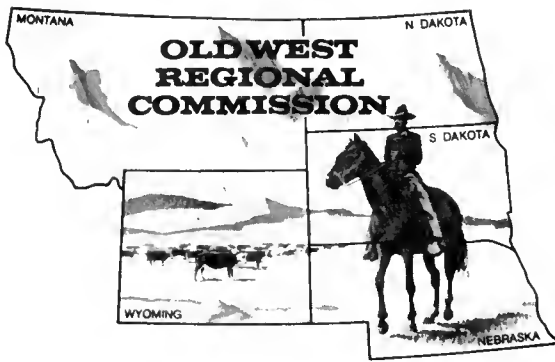
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ABRIDGED VERSION
REVISED DRAFT
REGIONAL ECONOMIC PLAN
FOR THE
OLD WEST REGIONAL COMMISSION

MARCH, 1976



The Old West Region Commission is a Federal-State partnership designed to solve regional economic problems and stimulate orderly economic growth in the states of Montana, Nebraska, North Dakota, South Dakota and Wyoming. Established in 1972 under the Public Works and Economic Development Act of 1965, it is one of seven identical Commissions throughout the country engaged in formulating and carrying out coordinated action plans for regional economic development.

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FOREWORD

This document is an abridged version of the Old West Regional Commission's revised draft "Regional Economic Plan" also published in March, 1976. The presentation is divided into six major parts: 1) study purpose; 2) general approach; 3) regional conditions, resources and structure; 4) projections of the regional economy (to 1985); 5) regional objectives and goals; and 6) goal attainment strategy.

The revised draft report concludes many months of activity. While formal work on the plan began in the spring of 1975, and a draft of the report was submitted in October 1975, planning activities in the Old West States have been supported by State public investment planning grants since early 1973. Planning on a regional basis began early in 1974 upon acquisition of a Commission staff following a year of budgetary uncertainty. The report is, therefore, a milestone in the course of ongoing activities and will serve to stimulate a living process in the years to come.

Special recognition for their assistance in preparation of this report is accorded to the Commission Alternates of the five Old West States, the Commission staff and particularly Project Coordinator, Dr. Phillip Brooks, the Investment Planning staffs of the five States, and the staff of Centaur Management Consultants, Inc. under the direction of Project Manager Paul W. Kolp. Further acknowledgements can be found at the end of this report.

Warren C. Wood
Federal Cochairman
Old West Regional Commission

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1.0 STUDY PURPOSE

The Old West Regional Commission was established under Title V of the Public Works and Economic Development Act of 1965 (as amended). One of the requirements of this Act is that the Commission initiate and coordinate the preparation of long-range overall economic programs for the Region, including the development of a comprehensive long-range economic plan approved by the Secretary of Commerce. A revised draft version of such a plan was prepared and is currently under review. This paper is an abridgement of the Commission's long-range economic plan.

In preparing this plan, U.S. Department of Commerce planning guidelines were utilized. These in aggregate provide detailed, but still general guidelines for development of a regional plan. This reflects in part the understanding by the Department of Commerce that variations in the planning process will exist among the regions due to differences in problems, potentials and other characteristics. Also, over time other factors or conditions are likely to be responsible for changes in the planning process. For example, during the past decade there has occurred a change in Regional Commission emphasis on solely economic development matters to greater concern for the relationships between economic, environmental, land use, social and other conditions or factors.

The Old West Regional Commission has endeavored to answer the major questions posed by the guidelines, indicating 1) the levels and trends of socio-economic conditions in the Region historically (at least over the most recent several decades), 2) the current status of the regional economy, 3) likely future characteristics of the regional economy, 4) desirable and undesirable aspects of this future, with particular emphasis on what needs changing, and 5) how the Region would proceed in attempting to attain more desirable goals (or benefits) and the costs associated with these actions.

In addition, the Old West Regional Commission views the planning process as a "living" or a continuing process. The essential element is to produce a convincing regional economic plan. One that cannot only meet the legislative requirement of obtaining Department of Commerce approval, but one that also provides an understanding of the Region, of directions and possibilities, and provides a framework for allocating Commission resources and for beginning to positively influence Federal and non-Federal spending in the Region. As better data and the results of other studies and investigations become available, and as certain national and regional issues are clarified and actions result (especially in the energy field), it is expected that the Commission's plan and the planning document will be continuously reviewed and updated. Further, regional planning can be viewed as a process proceeding simultaneously on three levels: 1) the macro-economic or overall regional level, 2) the sector (agriculture, mining, manufacturing, etc.) level, and 3) the micro-economic or project level resulting largely from local initiatives and an understanding of local conditions. Each level of planning is inter-related with the other, and

both "top-down" and "bottom-up" planning activities merge in producing the regional plan. The present plan concentrates most heavily on providing the overall regional framework and related sector analyses as a basis for recommending the general types of project investment priorities and their general locations for achieving plan goals. Later, investigations and other activities at the local level will provide more definitive recommendations on specific project investment requirements, and these results will be used in updating and improving the planning process and the planning document.

2.0 GENERAL APPROACH

In order to answer the major planning questions of the Old West Regional Commission, 1) a historical review was performed of economic, social and environmental conditions in the Region, 2) a separate analysis was performed of specific socio-economic potentials and problems existing in the Region, and 3) projections (to 1985) were prepared of major economic, social and environmental conditions. From this a series of regional goals were formulated along with an estimate of public costs and a strategy for achieving these goals.

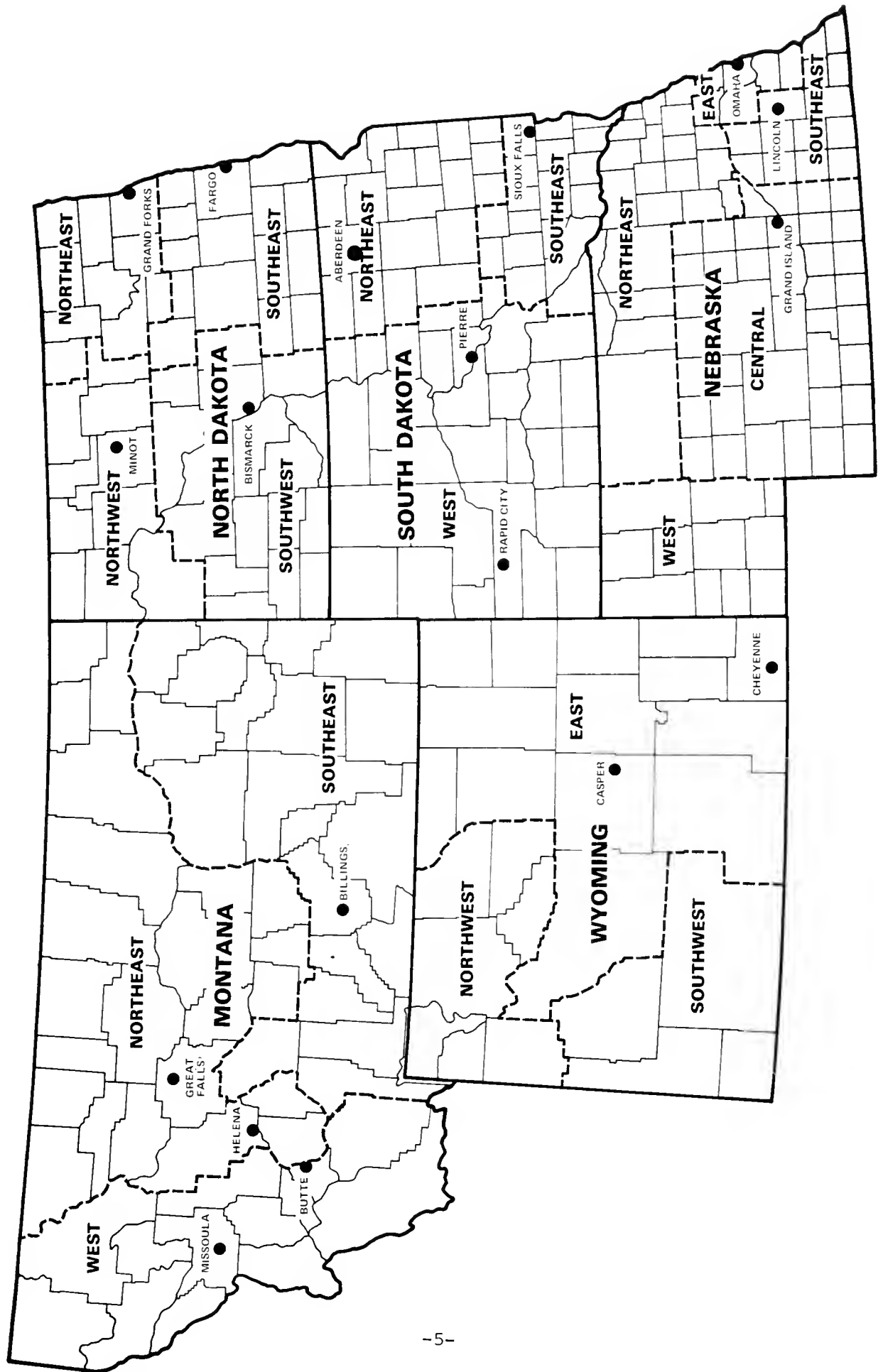
The approach utilized in this regional planning effort was to draw upon existing data bases and studies. This approach was partly dictated by the need to rapidly move ahead in forging a regional plan. Basic data sources included: 1) Bureau of Economic Analysis historical earnings data and projections by industrial sector; 2) State Department of Employment Security data on historical employment by industrial sector; 3) historical U. S. Census data on population, income, occupations, education, public expenditures and revenues, and other factors; 4) Federal Environmental Protection Agency (EPA), Council of Environmental Quality (CEQ) and State data on historical and projected environmental quality and pollution control; 5) Northern Great Plains Resource Program, State, other Federal agency, and private industry data on historical and projected energy-related activities in the Region; and 6) discussions with, and written reports from, public and private officials to determine other major potential future regional developments. In addition, a series of questionnaires were mailed to State officials and private employers (with 100 or more employees) in the Region to help assess economic potentials and problems in the Region and expected private investment levels over the next 5 to 10 years.

From this, an analytical framework was developed for integrating a substantial portion of the historical data base and other data in order to make regional projections to 1985. This framework included 1) a cohort-survival population model which was used to project 1985 natural population change by county, 2) a simple econometric model for projecting regional and sub-regional employment, earnings and personal income, population, and net-migration through 1985, and 3) development of a series of pollutant coefficients and other environmental data for projecting environmental conditions in the Region through 1985. Many of the assumptions about the future could be made obsolete as a result of changes in technological, political or other conditions. As is the case with most projections, these simply indicate what is expected to occur given present trends and knowledge.

In reviewing much of the historical data base and making many of the necessary projections, the analysis focuses on three separate geographical areas: 1) the Region, 2) each State in the Region, and 3) 18 sub-State areas. These 18 sub-State areas were delineated in order to begin assessing the particular

needs, problems, potentials and resource requirements at the sub-State level. These 18 areas constitute an aggregation of counties within individual States (i.e., they do not cross State boundaries), and each area generally includes several State planning districts. These areas were chosen by the Commission in conference with each State, and Figure 1 shows the location and the names selected for these various areas.

FIGURE 1
STATE AND SUB-STATE AREAS—OLD WEST REGION



3.0 REGIONAL CONDITIONS, RESOURCES AND STRUCTURE

This section reviews the existing and historical regional conditions, resources and economic structure. Included are abridgements of: 1) general population characteristics; 2) economic and related characteristics of the population; 3) the natural resources base; 4) environmental quality; 5) public expenditures, revenues and regional facilities; 6) housing and medical professional conditions; 7) industrial structure; and 8) an overview of regional potentials and problems. Table 1 provides a summary of some of the statistical characteristics or indicators of the Region.

3.1 General Population Characteristics

For a number of decades the Region has had little population growth. This occurred because of the relatively large numbers of persons migrating out of the Region. During the last several years, however, this long-term trend has reversed itself, resulting in net in-migration. Over the years the inhabitants have displayed high physical mobility. Apparently there is a willingness to travel toward existing job opportunities.

The Region is sparsely populated. It is generally rural in character with long distances between urban settlements. The Region lacks a central urban-industrial focus to integrate economic activity and to provide a center for self-sustaining economic growth. Instead, large metropolitan areas ring the Region, with only a few smaller metropolitan areas located in the Region and these generally near or astride the Region's outer boundary. The population and associated economic forces look outward from the Region instead of being focused or linked inward. This is consistent with the rural character and the predominating natural resources base of the Region.

The Region also contains relatively few racial minorities among its inhabitants, with American Indians being the largest single racial minority.

More specifically:

1. Between 1920 and 1970 the population of the Region increased from 3.3 million to 3.8 million, or a compounded rate of increase of only 0.3 percent per year. Between 1950 and 1960, and 1960 and 1970, the annual population growth rate was 0.7 percent and 0.2 percent, respectively, for the Region and 1.7 percent and 1.3 percent, respectively, for the nation. In 1970, the Old West Region contained about 1.9 percent of the nation's inhabitants.
2. Between 1970 and 1974, the Region's population growth rate increased to 1.1 percent annually while the nation's rate

Table 1

GENERAL CHARACTERISTICS
OLD WEST REGION

Population Characteristics, 1970	Region	Montana	Nebraska	North Dakota	South Dakota	Wyoming	United States
Population, in millions	3.79	0.69	1.48	0.62	0.67	0.33	203.21
As Portion of Nation	1.9%	0.34%	0.73%	0.30%	0.33%	0.16%	100.0%
Population Density, persons per square mile	8.2	4.8	19.4	8.9	8.8	3.4	57.5
Urban Population	54.2%	53.4%	61.5%	44.3%	44.6%	60.5%	73.5%
SMSA Population	25.6%	24.4%	42.8%	11.9%	14.3%	0.0%	68.6%
Non-White Population	3.8%	4.5%	3.4%	2.9%	5.3%	2.8%	12.5%
Indian Population	2.2%	3.9%	0.4%	2.3%	4.9%	1.5%	0.4%
General Fertility Rate, births per thousand women age 15-44	90.0	91.1	87.0	91.2	92.0	95.5	87.9
Death Rate, deaths per thousand persons	9.59	9.51	9.87	9.09	9.87	8.84	9.45
Net Migration 1960-1970, in hundreds of thousands	-383	-63	-74	-103	-102	-42	--
Educational Attainment, median years completed persons 25 years and older	12.2	12.3	12.2	12.0	12.1	12.4	12.1
Employment Participation Ratio, total employment to population 20 through 64 years old	0.87	0.80	0.90	0.86	0.89	0.86	0.80
Unemployment Rate	3.9%	5.5%	3.1%	4.6%	3.3%	4.5%	4.9%
Per Capita Personal Income	\$3,540	\$3,490	\$3,840	\$3,160	\$3,140	\$3,810	\$3,940
As Portion of Nation	89.8%	88.6%	97.5%	80.2%	79.7%	96.7%	100.0%
Mean Family Income (1969)	\$9,520	\$9,660	\$9,790	\$9,090	\$8,800	\$10,130	\$10,930
As Portion of Nation	87.1%	88.4%	89.6%	83.2%	80.5%	92.7%	100.0%
All Persons Below Poverty Level (1969)	14.5%	13.6%	13.1%	15.7%	18.7%	11.7%	13.3%
Mean Income Deficit of Poverty Group (1969)							
Families	\$1,380	\$1,440	\$1,330	\$1,360	\$1,450	\$1,380	\$1,550
Unrelated Individuals	\$ 880	\$ 860	\$ 880	\$ 900	\$ 890	\$ 870	\$ 950
Land Size and Control, 1972							
Land Area, thousands of square miles	464.5	145.6	76.5	69.3	76.0	97.2	3,536.9
As Portion of Nation	13.1%	4.1%	2.2%	2.0%	2.1%	2.7%	100.0%
Public Land as Portion	29.7%	41.0%	5.8%	8.9%	19.7%	54.5%	41.7%

of growth declined to 1.0 percent per year. By 1974 the Region's population numbered almost 4.0 million persons.

3. The Region's area covers almost 465 thousand square miles, or 13.1 percent of the nation's area. The average 1970 population density was 8.2 persons per square mile in the Region versus 57.5 in the nation.
4. In 1970, 46 percent of the Region's population was located in rural areas as against 26 percent in the nation; also, only 39 percent of the Region's population lived in urban areas with 10 thousand or more persons, whereas 55 percent of the nation's population lived in such areas. Among the States, Nebraska was the most urbanized. In addition, in 1970 there were only 7 SMSAs in the Region. Only two SMSAs (Omaha and Lincoln) contained more than 100,000 persons, and 26 percent of the Region's population lived in SMSAs compared to 69 percent in the nation. Between 1960 and 1970, the rural-urban population mix showed a fair degree of stability in the Region, although the greatest population growth occurred in urban areas of 5-10 thousand persons.
5. Only 3.8 percent of the Region's 1970 population was non-white, compared to 12.5 percent in the nation. American Indians are the dominant minority, numbering about 86 thousand in 1970 and accounting for 2 percent of the Region's population.
6. In 1970, of the Region's population, 39.3 percent were age 0-19 (versus 37.9 percent for the nation), 49.3 percent were age 20-64 (versus 52.3 percent for the nation), and 11.3 percent were 65 years old or more (versus 9.9 percent in the nation). There have also tended to be more males than females in the Region (3 percent higher in 1970) as compared with the nation.
7. In 1960 the general fertility rate for the Region was 15 percent above the nation's, but by 1970 the Region's rate was only 2 percent above the national rate. While the national fertility rate declined appreciably during the 1960's, the decline was much more dramatic in the Region. Regional and national death rates appear to be very similar.
8. Between 1960 and 1970 there was a net out-migration from the Region of an estimated 383 thousand persons, or more than 10 percent of the existing 1960 or 1970 population. Net out-migration was especially large among those age 20-29 in the Region, amounting to 28 percent of those in

this age bracket in 1960. The highest out-migration rates during the 1960's occurred in Northeast Montana; West Nebraska; Northwest, Southeast and Southwest North Dakota; and Northwest Wyoming.

9. Net migration data mask the actual movements into or out of an area. For example, between 1965 and 1970, net out-migration from the Region was estimated at 194 thousand persons. But during this mere 5-year period, 504 thousand persons left and 310 thousand persons moved into the Region. Another 62 thousand persons moved between the five States in the Region, or just under a million persons moved into or out of these five States. Overall about 16 percent of the population out-migrated from these five States, compared to about 9 percent out-migrating from all states in the nation. While the age-sex characteristics of regional in-migrants and out-migrants were similar, movements were especially high in the 20-29 year old age bracket. In all States of the Region approximately 30 percent or more (in three States more than 40 percent) of those in this age bracket in 1965 moved out by 1970; and between 1965 and 1970 in-migrants amounted to over 20 percent (in one State more than 30 percent) of the 1965 population in the 20-29 year old age bracket.
10. A net in-migration occurred in the Region between 1970 and 1974, amounting to an estimated 52 thousand persons. Net in-migrations occurred in Montana, Nebraska and Wyoming and little net movement occurred in North Dakota and South Dakota.

3.2 Economic and Related Characteristics of the Population

Low per capita and family income levels have historically been common to many parts of the Region. This represents a dominant economic problem in many areas of the Region. While the Region is generally characterized (for a variety of reasons) by high employment rates, the relatively low earnings frequently obtained from this employment has resulted in low family and per capita incomes. From a poverty standpoint, though, the Region is not much worse off, on average, than the nation as a whole; but while the proportion of people below the poverty level is similar, those in the Region are relatively less poor than those elsewhere. However, the very greatest employment, income and poverty problems in the Region exist among the American Indian inhabitants.

The occupational characteristics of the Region reflect a relatively large proportion of farm-oriented skills. Even so, the Region still maintains a substantial portion of professional and non-farm skilled occupations. In addition, educational attainment levels are high in the Region, and

every State in the Region has a higher proportion of persons completing at least one year of college than the nation. Also, while Indian educational attainment levels are relatively low in comparison to the Region or nation, it is apparent that the Indian people have not been receiving economic rewards in proportion to educational gains similar to those being obtained in non-Indian society.

The following summarizes the specific data results:

1. Employment participation ratios (i.e., total employment divided by population age 20 through 64 years old) were higher in the Region as compared to the nation in 1950, 1960 and 1970. In 1970, the Region ratio was 9 percent higher than the national ratio. Only one sub-State area, West Montana, was below (by 7 percent) the national employment participation ratio in 1970.
2. For the period 1970-1974, the average unemployment rate for the Region was 4.2 percent and for the nation it was 5.4 percent. This amounts to an unemployment rate for the Region about 20 percent below the national rate. However, during this period Montana had unemployment rates consistently higher, averaging 6.2 percent, than the nation's.
3. Over the period 1950-1974, total personal income (in current dollars) grew at an annual rate of 6.0 percent in the Region and 7.0 percent in the nation. Only in the recent 1970-1974 period was the total annual personal income growth rate higher for the Region in comparison with the nation (11.0 percent versus 9.4 percent, respectively).
4. Per capita personal income (in current dollars) in the Region was \$1,450 (97 percent of the national average) in 1950 compared to \$5,170 (95 percent of the national average) in 1974. This amounts to an annual growth rate of 5.4 percent for the Region and compares with a national increase of 5.5 percent per year during the 1950-1974 period. However, both of these years (i.e., 1950 and 1974) are atypical in recent history, partly due to higher than usual agricultural income. For example, in 1959 and 1970 per capita incomes of the Region lagged those of the nation by 11-15 percent; and South Dakota showed the greatest disparity, lagging the national average by 20-30 percent in these years.
5. In 1969, mean family income was \$9,500 in the Region versus \$10,900 in the nation. While mean family income of the Region was 13 percent lower than that for the nation, among the States the range was from 20 percent below the national level in South Dakota to 7 percent below the national level in Nebraska.

6. In 1969, 14.5 percent of the Region's population were classified in the poverty category as compared with 13.3 percent of all persons in the nation. The least proportion of poverty among all persons occurred in Wyoming, with 11.7 percent; and the greatest proportion occurred in South Dakota, with 18.7 percent. On the other hand, in 1969, the mean income deficit of poverty families (i.e., the income required to remove these families from the poverty category) was \$1,380 in the Region versus \$1,550 (or 12 percent higher) in the nation.
7. In 1970, about 15 percent of the Region's population were classified as farmers, farm managers or farm laborers, this compares with 3 percent for the nation. On the other hand, the proportion of professional-technical and craftsmen-foremen in the Region show only minor (1-2 percentage points) lags compared with the nation; and the percentage of managers-officials-proprietors was higher in the Region than in the nation. However, there were significantly lower proportions of the semi-skilled operatives-transport occupations in the Region (10.5 percent) as compared with the nation (16.3 percent).
8. Educational attainment among those 25 years old and over had reached 11.2 years in 1960 and 12.2 years in 1970 for those in the Region, compared with 10.5 years in 1960 and 12.1 years in 1970 for those in the nation.
9. Among those people living in the Region, American Indians reflect some of the very greatest economic problems:
 - Employment participation ratios were 40 percent lower than the nation and 45 percent lower than the Region in 1970.
 - The unemployment rate was a very conservatively estimated 19 percent in 1970, or 5 times the regional rate.
 - The mean family income of \$5,600 in 1969 was about one-half the national average.
 - Per capita income in 1969 was estimated at \$1,000, or only about 25 percent of the national average.
 - Over 46 percent were classified in the poverty group in 1969.

- The largest proportion of those employed were in low paying laborer and service jobs in 1970.
- Median years of educational attainment in 1970 amounted to 9.5, or 22 percent lower than the Region level.

3.3 Natural Resources

The Region contains a substantial proportion of the nation's land area, and agriculture predominates as a land use and economic activity. Production of crops and livestock have increased substantially during the past ten years, and prices have also increased.

The Region generally has had adequate water supplies, but substantial growth in utilization coupled with localized availability contribute to water resource problems. A major problem will continue to be how to move water from "water surplus" areas to "water deficient" areas.

Mining, particularly coal, petroleum, and other fuels, has shown a considerable ten-year growth trend, and the development potential for these resources is great. This potential is concentrated in Montana, North Dakota, and Wyoming. Both forestry and tourism are relatively small factors in the Region's economy, and the development potential for these activities is somewhat restricted. However, forestry and tourism are important activities in several sub-State and local areas.

Specifically:

1. More than 13 percent of the nation's land area is accounted for by the Region. Over 70 percent of the land is privately owned. However, about 55 percent of Wyoming's and 41 percent of Montana's lands are under public control. Federal ownership or administration accounts for over 85 percent of the public land. Over 70 percent of the Region's land is used for agricultural purposes, and 83 percent of the land is suitable for agricultural use (i.e., classified as grassland or cropland). About 45 percent of the nation's agriculturally productive land is in the Region. Approximately 60 percent of the Region's grasslands are in Montana and Wyoming while almost 80 percent of the Region's croplands are located in the three eastern States. Very little (less than 1 percent) of the Region's land area has been urbanized.

2. In a gross sense the Region has had adequate water resources to fully meet its annual needs. However, there are year-to-year problems with fluctuating flow rates and with severe shortages in specific locations throughout the Region. Four river basins account for virtually all of the Region's watershed, and the Missouri River Basin has a drainage area encompassing almost 70 percent of the Region's total area. In 1970, ground water supplied about 20 percent of the water used by the Region, and this water source is particularly important to local areas without access to surface water supplies. A 70 percent increase in water use was experienced from 1960 to 1970, and over 80 percent of the water used was consumed or not returned to ground or downstream sources. This growth rate in use was over twice the national figure for the same period. Considerable competition between irrigation and energy-related developments for existing water resources could develop in localized areas in the Region during the next ten years. There also exist a number of institutional barriers constraining the transfer and use of water. However, it was estimated that in 1970 the Upper Missouri River had an additional 9.9 million acre-feet of surface water available annually for use. This amounts to over 50 percent of the 1970 water consumption in the Region.
3. The major portion of the Region's land and water resources are currently utilized for farming or ranching activities. Over 233 million acres are committed to farming, and this acreage has declined only slightly in recent years. However, the number of farms and ranches have declined considerably in recent years. Wheat (almost 33 percent of the nation's value of production in 1973) and corn are the Region's principal crops. Wheat production rose by 100 percent during the 14-year period 1959-1973, while corn production rose by 84 percent during this period. Other crops showed even more dramatic production increases. There have also been dramatic, but erratic, rises in grain prices in recent years. Between 1969 and 1973 wheat prices experienced a 242 percent increase. The market value of livestock and poultry also increased over 180 percent between 1959 and 1973. Agriculture is the largest "industry" in the Region. The value of all crops harvested in 1973 was estimated at \$6.3 billion, with those sold valued at \$3.7 billion. The value of livestock and poultry sold in 1973 was estimated at \$5.0 billion. The value of all regional crops and livestock sold in the Region in 1973, therefore, was almost \$8.7 billion.

4. The Region is a relatively small producer of forestry products, with primary production occurring in Montana and some additional activity in Wyoming. The Region's supply of timber is only about 5 percent of the national total. The value of regional saw timber production was only about \$126 million in 1970.
5. Mining operations have shown substantial increases in production in recent years. In 1974, the value of mineral production in the Region was over \$2.5 billion. Montana and Wyoming together accounted for almost 85 percent of this value of production, with Wyoming alone accounting for over 60 percent. In 1974, crude petroleum was the most valuable mineral product mined in the Region, valued at almost \$1.4 billion. However, coal production is growing rapidly in the Region and the future potential is very large. Coal reserves in a 63-county area of the Region have been estimated at 1.5 trillion tons, of which 54 billion tons are currently recoverable. Regional output of coal grew from 4 percent of the national total in 1971 to 7 percent in 1974. The availability of low sulfur content coal and the large increases in coal prices provide substantial incentives for rapid growth of coal mining activities in the Region. In addition to coal and oil, natural gas and uranium are important energy resources available in the Region. While not as extensively available as coal, there are substantial quantities of the other energy resources in the Region, and economic pressures have increased to develop these resources as the prices of energy resources continue to rise.
6. Domestic travel expenditures in the Old West Region were estimated at \$839 million in 1972. The Region has several scenic natural areas which attract large numbers of tourists each year. Overnight travel and tourism facilities are primarily situated in urban areas, along Interstate highways, and near Glacier National Park, Yellowstone/Teton National Parks, and Mt. Rushmore National Monument. Visitations at these latter attractions grew substantially during the 1960's, but moderate declines occurred after 1973. While there are many attractions in the Region, the short summer season, great distances, the lack of large nearby metropolitan markets, and the relatively small numbers (compared to the East) of out-of-state traffic on the Interstate highways could restrict tourism development during the next ten years. However, growth potential oriented around current major attractions could help offset these growth barriers.

3.4 Environmental Quality

Environmental quality is generally quite good in the Region. The degradation which exists is often the result of land use activities which are not currently controlled by Federal, State or local standards. Air and water quality should continue to improve with the implementation of current Federal legislation. However, it is important to note that this conclusion is based on a Region-wide assessment and on a select number of pollutants which act as surrogates for other pollutants. Not considered in this analysis are localized environmental conditions and certain toxic but less pervasive pollutants.

Surface water quality in the Old West Region is most frequently impacted by nonpoint sources of pollution. A "nonpoint" source of pollution (often related to land use) occurs on a broad scale and does not lend itself to isolation or efficient control measures. A "point" source of pollution is a specific condition or origin which can usually be isolated and subjected to control.

The most predominant forms of pollution in the Old West Region are nutrients, salts and suspended solids. Large concentrations of nutrients (i.e., phosphates and nitrates) increase the eutrophication potential of relatively stagnant waters by stimulating heavy algal growth. An excessive salt content (as total dissolved solids) in water can disrupt aquatic communities and decrease the value of water for irrigation and domestic water supply purposes. A heavy concentration of suspended solids in surface water reduces the amount of light available to underwater plants and causes esthetic damage to recreational waters.

Sporadic high levels of nutrients in the Region are often the result of fertilization and surface water runoff from pastures and cropland. The high salinity content of some regional water supplies is caused by natural salts (i.e., chlorides and sulfates) carried in agricultural runoff and the return flow of irrigation waters. These salt levels are augmented by other sources, such as mine drainage and saline seep. Mine drainage also increases the content of trace metals, such as copper, iron and manganese in the Middle Missouri River (from Yankton, South Dakota to Kansas City, Missouri). The concentration of suspended solids (or turbidity) in the Region is greatest in the Middle Missouri River Basin as a result of strip mining in the Upper Missouri River Basin and farming practices as well as natural sedimentation. Urban storm runoff also tends to contribute considerable concentrations of organic material, nutrients, metals, oils and pesticides to waters in the Old West Region. Concentrations of nutrients, salts and suspended solids tend to have an increasingly degrading effect in the Middle Missouri River Basin due to agricultural activity and the cumulative results of irrigation, mine drainage, and agricultural and feedlot runoff.

Regional point source discharges do not generally degrade water quality to the extent (noted above) of nonpoint sources. Inadequate sewage treatment is the most notable point source of regional water quality degradation. Municipal and industrial wastes often result in detrimental levels of nutrients and fecal coliform bacteria which are supplemented by feedlot runoff. Fecal coliform concentrations are highest in eastern Nebraska.

Ambient regional air quality data is scarce due to a lack of monitoring stations and consistently measured air quality parameters. Most of the available data is limited to major urban areas and provides an insufficient record for the establishment of detailed statewide ambient air quality profiles.

The U.S. Environmental Protection Agency (EPA), has developed National Ambient Air Quality Standards (NAAQS) for the following six "criteria air pollutants": sulfur oxides (SO_x), particulate matter, carbon monoxide (CO), photochemical oxidants, hydrocarbons (HC) and nitrogen oxides (NO_x).

Regional air quality measurements indicate that ambient levels of air pollutants in the Old West Region have been generally low, with the exception of sporadic particulate concentrations. Even so, historically the concentrations of particulates in the Old West Region have been lower than that of the Midwest area in which it is contained, and that of the nation as a whole.

Point sources of particulate pollution in the Region include power plants, oil refineries, mineral processing operations and grain elevators. Point sources of regional sulfur oxide emissions are coal powered electric generation, the primary and secondary metals industries, wood and mineral products, and petroleum refineries. Major area (i.e., nonpoint) sources of air quality degradation, such as soil erosion, transportation and the combustion of vegetation (forest fires, agricultural burning) frequently emit substantial amounts of particulates, hydrocarbons, carbon monoxide and nitrogen oxides.

Based on calculations (i.e., as opposed to obtaining actual field data) of emissions from 1972 through 1974, the following conclusions were drawn. There was approximately a 10 percent increase in regional particulate emissions from 1972 to 1974, whereas, the nation experienced a 10 to 20 percent decrease in particulate emissions. The national decrease was due to increased pollution control measures resulting in reduced industrial and solid waste particulates and a reduction in the particulates emitted by coal powered electric generating plants. The Old West, however, was calculated to have experienced increased particulate emissions by industrial activities (primarily the petroleum, secondary metals and mining industries). Agricultural processing and the generation of electricity also contributed to higher regional particulate levels in 1972-1974. These emissions when combined with high regional levels of naturally occurring fugitive dust in an especially dry period, were responsible for a substantial increase in regional particulates. National sulfur oxide emissions rose approximately 10-20 percent between 1972 and 1974. These emissions were primarily due to manufacturing activities.

Other sources of sulfur oxides throughout the nation remained relatively constant. The Old West Region experienced a decrease of approximately 10 percent in sulfur oxide pollution due to reduced emissions from coal powered electric generation and the primary metals (e.g., smelting/reduction) industry. The nation was calculated to have experienced a moderate (less than 10 percent) overall increase in nitrogen oxide emissions between 1972 and 1974 as a result of passenger and freight transportation and industrial activity. The Old West Region showed a much larger increase (approximately 20 percent) in NOx emissions. The petroleum and electric power generating industries were responsible for a disproportionately large amount of such emissions. Nebraska also contributed to high regional emissions due to increased vehicle transportation. Lower (by 10-20 percent) national hydrocarbon emissions were largely the result of improved auto emission controls utilized during 1974. However, hydrocarbon emissions rose in Montana and Wyoming largely as a result of petroleum refining operations in these areas. The increase (approximately 20 percent) in regional carbon monoxide emissions between 1972 and 1974 was attributed to natural combustion (forest fires, agricultural and slash burnings) in Wyoming and Montana and the number of vehicle miles traveled throughout the Region (particularly in Nebraska).

3.5 Public Expenditures-Revenues and Regional Facilities

The Old West Region generally follows the national pattern in terms of public expenditure and revenue growth. However, per capita public expenditures and revenues are generally higher in the Region in comparison with the nation, with such expenditures being especially high for highway and education activities but low for health and hospital activities.

In transportation, there appear to be no major regional deficiencies at present in air, highway or rail facilities. However, most facilities serve east-west traffic patterns, and there are few major inter- or intra-modal interchanges to provide an impetus to regional development. In addition, there could be localized problems with transportation facilities. Such problems could have an important impact on the potential coal extraction localities if development of these areas continues to proceed rapidly.

Little growth in post secondary educational facilities is anticipated during the next ten years, but some shift in emphasis from four-year colleges and universities to junior and community colleges is likely if current trends continue. In recent years, there has been a decline in university and college enrollments and an increase in junior and community college enrollments. Also, there appears to be relatively few post secondary institutions offering skilled and semi-skilled occupational training courses for jobs in manufacturing, mining and construction related activities.

The Region's hospitals are primarily small in size, and the larger health facilities are located in the larger cities and towns. The number of hospital beds has shown a moderate decline in recent years, but this follows a national trend.

The Region is a net exporter of electrical power and relies heavily on hydro and coal-fueled power plants. The Region's power facilities exported an estimated 20 percent of their 1973 production.

More specifically:

1. The Old West Region received \$5.2 billion in Federal funds in 1974; up from \$3.8 billion in 1968. However, in 1974, Federal expenditures for the Region declined 9 percent when compared with 1973. Approximately two-thirds of these funds originated from the DHEW, DOD, and USDA in declining magnitudes as listed. These same three agencies also accounted for two-thirds of the total Federal expenditures in the Region in 1968, but the sequence (by size of contribution) of agencies was reversed from the 1974 sequence. For State and local government expenditures, between 1964 and 1973 non-capital expenditures grew by over 130 percent while capital outlays grew by only 40 percent. Total State and local government expenditures in the Region grew from \$1.6 billion in 1964 to \$3.2 billion in 1973. Per capita total expenditures by State and local governments in the Region have historically been higher than in the nation. However, while per capita expenditures have been higher for highways and education in the Region in comparison with the nation, they have been substantially lower for health and hospitals, sewage treatment and public welfare. On the other hand, per capita revenues in the Region have moved much closer to the national average in recent years from a higher level in past years. Relative to the national figures on sources of public revenues, property tax income in the Region is high.
2. As of 1975 there were 57 airports in the Region certified by the FAA to handle regularly scheduled commercial air passenger service. Another 181 publicly operated airports were equipped to handle general aviation. Only one additional certificated facility (Tri-City Airport in Nebraska) is planned over the next ten years. While the number of airports appears adequate, intra-regional service is sometimes difficult, and only general aviation facilities are available in the potential coal development areas. Connecting flights are often routed through Denver for service between two cities in the Region.

3. The per capita miles of highways and streets in the Region is high, with less than 2 percent of the nation's population and 10 percent of the miles of highway. Relative to the land area of the Region (13 percent of the nation), the miles of highway (10 percent of the nation) is relatively low. The Region has twice as much non-surfaced roadway as surfaced roadway, reflecting the rural nature of the Region. Except for the extreme eastern part of the Region, Interstate highways are primarily east/west in direction. Also, there are few highway interchange centers which could serve as a transportation focal point for the Region.
4. Approximately 10 percent of the nation's rail right-of-way is located in the Region, but the rail lines are primarily east/west in orientation. South Dakota has no through rail service and, in fact, is without any rail passenger service. The potential for coal development could create competition for current rail service and could affect existing track and road beds. As with highways, there are few rail interchange centers which could serve as a transportation focal point in the Region.
5. As of 1974 there were 80 post secondary educational institutions in the Region, and these institutions were generally located in the larger cities. There has been a slight decline in enrollment at four-year institutions, but the junior and community colleges have shown substantial growth in recent years. In addition, 261 vocational training institutions of various orientations were located in the Region as of 1974. However, most of these offered only courses in fashions, cosmetology, flying, home study, etc., and there were only 40 technical institutes, trade or vocational schools.
6. Over 300 hospitals and health care facilities were providing in-patient services for the Region in 1973. These facilities tended to be located in cities and towns in proportion to the local population. Most of these facilities (74 percent) were relatively small,

containing less than 100 beds. However, 59 general treatment hospitals of over 100 beds were operating in the Region as of 1973. The number of hospital beds in the Region has shown a moderate decline in recent years, but this follows a national trend to consolidate services to achieve economies of operation.

7. As of 1973 the portion of the total population using sewers in the Region was 71.7 percent, while the national figure was 72.6 percent. Nebraska substantially exceeded the national figure with 80.7 percent. The percent of total population which received treated sewage services was about 71 percent for both the Region and the nation. In terms of the quality of the sewage treatment, however, the Region has better facilities than the nation as a whole. Secondary and tertiary sewage treatment facilities were slightly more prevalent in the Region than the nation.
8. The Region has a significant number of water impoundments and hydroelectric generating plants. In 1973, hydro plants generated about 40 percent of the power produced in the Region, and the Region was a net exporter of power. Exports included an estimated 20 percent of the power generated in 1973, and Nebraska was the only State which did not export power in that year. By 1973, coal-fired power plants generated approximately the same amount of power as the hydroelectric plants. Natural gas, oil, and nuclear plants produced the remaining 20 percent of the Region's power.

3.6 Housing and Medical Professional Conditions

Data indicate that housing conditions throughout the Region are relatively similar to those in the nation; however, in 1970, on a percentage basis there were: 1) relatively more owner occupied housing units in all States of the Region, 2) substantially more occupied mobile units in the Region (especially in Wyoming and Montana), 3) slightly less overcrowding in the Region, 4) slightly more telephones in the occupied units of the Region, and 5) slightly fewer occupied units in the Region with all plumbing facilities. While there appeared to be proportionately more vacant dwelling units in the Region in comparison with the nation in 1970, this variation is slight when only those units are considered which contained all plumbing facilities. In fact, the data show relatively low absolute numbers of adequate vacant dwelling units in most counties of the Region, and even these may be in an unsatisfactory location to support most economic development activities. The conclusion reached is that the existing regional housing base appears to be quite limited to support potential mining or other developments in the Region.

Concerning medical professionals, the overwhelming problem appears to be the lack of physicians in the Region. In 1972 there were an average of 110 physicians per 100,000 population in the Region, compared to a rate of 157 in the nation. The nation had about 43 percent more physicians available than the Region to serve an equivalent population and this relationship appears to be stable over time. This problem was prevalent in all States, but South Dakota showed the greatest disparity with only 90 physicians per 100,000 persons in 1972.

3.7 Industrial Structure

Tables 2 through 5 present real earnings (in constant 1967 dollars) and employment data for the Old West Region and the nation for selected years from 1950 through 1974. As shown in Table 2, total earnings (1967 dollars) have grown from \$5.9 billion in 1950 to \$11.3 billion in 1974, or at a compounded annual growth rate of 2.7 percent. Real earnings in 1973 were \$12.7 billion, \$1.4 billion greater than in 1974. This resulted primarily from declines in agricultural earnings due to adverse weather conditions and lower agricultural commodity prices. As Table 3 indicates, earnings growth was not evenly distributed during the 24-year period. For instance, the Old West Region's economy grew fastest during the 1970-1974 period, and grew faster during the 1960's than it did during the 1950's. Earnings growth during the 1950's in the Region was well below the national rate, whereas in the early 1970's earnings growth was substantially higher in the Region in comparison with the nation. The nation's annual real earnings growth rate was 3.7 percent from 1950 to 1959, in contrast to only 0.4 percent for the Region. The slow-down in the Region's economy during the 1950's can be traced largely to a substantial decline in agricultural earnings and employment. On the other hand, the Region's annual real earnings growth rate between 1970 and 1974 was 5.5 percent compared to the nation's 2.9 percent. This spurt in regional growth is largely linked to increased agricultural and mining revenues.

Table 2 also presents the sectorial distribution of real earnings for the Region and the nation. With the exception of agriculture and manufacturing, the sectorial distribution in the Region is roughly comparable to the real earnings pattern in the nation. Over the years, in relative terms, the Region's agriculture sector contributed three to four or more times as much to total earnings as did the agriculture sector in the nation. On the other hand, the manufacturing sector in the nation contributed two to three times as much to total earnings as did manufacturing in the Region.

Table 2

REAL EARNINGS¹
BY INDUSTRIAL SECTOR
OLD WEST REGION
SELECTED YEARS 1950-1974
(millions of constant 1967 dollars)

	Agriculture	Mining	Contract Construction	Manufacturing	Transport. Comm. & Utilities	Wholesale & Retail Trade	Finance Insurance & Real Estate	Services	Federal Gov't	State & Local Gov't	Total 2
1950	2,078.6	132.7	350.7	429.4	519.8	1,106.5	171.9	478.2	317.1	338.2	5,923.2
1959	1,032.4	165.0	455.9	664.1	592.8	1,233.6	275.7	691.8	463.1	562.9	6,137.4
1962	1,718.0	158.5	577.4	745.3	610.3	1,324.9	303.9	819.0	571.6	661.1	7,490.0
1968	1,362.5	176.4	520.0	961.5	686.5	1,527.7	390.2	1,105.0	722.2	959.6	8,411.7
1970	1,507.2	191.7	579.7	1,013.4	733.6	1,602.6	396.9	1,208.7	764.6	1,105.5	9,103.8
1972	1,980.8	195.2	691.0	1,112.2	827.5	1,703.5	448.2	1,305.3	869.5	1,209.1	10,342.4
1973	3,912.2	225.8	765.5	1,178.8	887.0	1,835.3	457.3	1,306.7	884.7	1,263.5	12,716.8
1974	2,439.4	263.4	784.5	1,183.4	879.7	1,876.7	460.6	1,305.7	849.3	1,235.1	11,277.8

SECTOR EARNINGS AS A PERCENT OF TOTAL EARNINGS

OLD WEST REGION AND NATION											
Old West Region											
1950	35.1	2.2	5.9	7.3	8.8	18.7	2.9	8.1	5.4	5.7	100.0
1959	16.8	2.7	7.4	10.8	9.7	20.1	4.5	11.3	7.6	9.2	100.0
1962	22.9	2.1	7.7	10.0	8.2	17.7	4.1	10.9	7.6	8.8	100.0
1968	16.2	2.1	6.2	11.4	8.2	18.2	4.6	13.1	8.6	11.4	100.0
1970	16.6	2.1	6.4	11.1	8.1	17.6	4.4	13.3	8.4	12.1	100.0
1972	19.1	1.9	6.7	10.8	8.0	16.5	4.3	12.6	8.4	11.7	100.0
1973	30.8	1.8	6.0	9.3	7.0	14.4	3.6	10.3	7.0	9.9	100.0
1974	21.6	2.3	7.0	10.5	7.8	16.6	4.1	11.6	7.5	11.0	100.0

United States											
1950	9.1	2.0	6.0	28.9	8.2	18.9	4.2	11.2	5.9	5.6	100.0
1959	4.8	1.4	6.1	30.1	7.7	17.9	5.1	12.7	6.8	7.4	100.0
1968	3.5	1.0	6.0	29.4	6.9	16.4	5.2	14.6	7.4	9.7	100.0
1970	3.6	1.0	6.2	26.3	6.9	17.1	5.1	15.7	7.2	10.9	100.0
1972	3.8	1.0	6.4	25.2	7.1	17.0	5.3	15.7	6.9	11.6	100.0
1973	5.1	1.0	6.3	26.7	7.2	16.1	5.1	15.0	6.5	10.9	100.0
1974	4.0	1.1	6.3	26.8	7.2	16.5	5.2	15.3	6.5	11.1	100.0

1 Defined as wages and salaries, plus other labor and proprietor's income, deflated by the U.S. personal consumption price deflator 1967=100.0.

2 May not add due to rounding.

Table 3

REAL EARNINGS
ANNUAL GROWTH RATES BY SECTOR
OLD WEST REGION AND NATION
SELECTED PERIODS 1950-1974
(in percent)

	<u>Agriculture</u>	<u>Mining</u>	<u>Contract Construction</u>	<u>Manufacturing</u>	<u>Transport. Comm. & Utilities</u>	<u>Wholesale & Retail Trade</u>	<u>Finance Insurance & Real Estate</u>	<u>Services</u>	<u>Federal Gov't</u>	<u>State & Local Gov't</u>	<u>Total</u>
<u>Old West Region</u>											
1950-1959	-7.5	2.4	3.0	5.0	1.5	1.2	5.4	4.2	6.5	5.8	0.4
1959-1970	3.5	1.4	2.2	3.9	2.0	2.4	3.4	5.2	4.7	6.3	3.7
1970-1974	12.8	8.3	7.8	3.9	4.6	4.0	3.8	1.9	2.7	2.8	5.5
1950-1974	0.7	2.9	3.4	4.3	2.2	2.2	4.2	4.3	4.2	5.5	2.7
<u>United States</u>											
1950-1959	-3.8	0.0	4.0	4.1	3.0	3.0	5.8	5.1	5.4	6.9	3.7
1959-1970	1.2	0.8	4.2	3.5	3.5	3.5	4.3	5.9	4.8	7.7	4.3
1970-1974	6.4	4.9	3.5	1.9	3.3	2.8	3.3	3.3	0.3	4.4	2.9
1950-1974	0.3	1.2	4.0	3.6	3.3	3.2	4.7	5.2	4.3	6.8	3.8

During the period 1950 to 1974 the driving forces of growth in the Region's economy have been the manufacturing, mining, and Federal Government sectors. That is, these sectors have been most responsible for stimulating growth in the transportation, communications and utilities (TCU), contract construction, trade, finance, insurance and real estate (FIRE), services, and State and local government sectors. While agriculture has always been an important factor in the regional economy, it has not been a significant catalyst for growth. Only in the past several years (i.e., 1973 and 1974) has agriculture, because of substantially increased earnings, appeared to "drive" some of the other sectors.

Table 4 presents employment data by sector and Table 5 presents the annual growth rates of employment by sector for the Region and nation.¹ Employment increased from 1.4 million in 1950 to 1.8 million in 1974, a compounded annual growth of 1.2 percent. This growth was 37 percent below growth of employment in the nation (1.9 percent annually). As Table 5 indicates, Region employment grew at an annual rate of 0.4 percent from 1950 to 1959, 1.3 percent from 1959 to 1970, and 2.7 percent from 1970 to 1974. The extraordinary growth during 1970-1974 may be attributed to marked increases in employment in manufacturing, mining, construction, and TCU. The growth of these sectors, along with increased agricultural earnings, provided stimulus for additional growth in the trade, FIRE, services and State and local government sectors. Also, of the time periods reviewed since 1950, the 1970 to 1974 period is the only one where employment in the agriculture sector did not decline.

The distribution of employment between the five States in the Old West Region in 1974 was as follows: Montana, 17 percent; Nebraska, 40 percent; North Dakota, 16 percent; South Dakota, 17 percent; and Wyoming, 10 percent.

Reviews of earnings and employment contributions by industrial sector for the Region, each State and each sub-State area are provided in Chapter VIII and Appendix D of the full-length document.

3.8 Potentials and Problems

This summary draws upon the previous areas of analysis and a special survey of public officials and employers in the Region. This review specifically attempts to highlight the economic potentials and problems facing the Region now and probably during the next ten years.

1

Employment estimates as presented here are consistent with the "work force" definition. Total number of jobs are counted using this definition.

EMPLOYMENT BY
INDUSTRIAL SECTOR
OLD WEST REGION
SELECTED YEARS 1950-1974
(in thousands)

	Agriculture	Mining	Contract Construction	Manufacturing	Transport. Comm. & Utilities	Wholesale & Retail Trade	Finance Insurance & Real Estate	Services	Federal Gov't ¹	State & Local Gov't	Total ²
1950	433.0	26.3	65.7	113.5	119.7	254.9	38.7	144.0	56.8	114.0	1,371.6
1959	327.6	27.8	78.6	136.2	110.9	275.8	51.1	178.0	73.2	156.5	1,415.7
1962	311.3	25.3	85.7	142.8	105.8	284.4	55.5	191.8	84.5	170.6	1,457.7
1968	238.9	26.7	70.5	161.5	101.8	326.0	58.1	258.0	98.6	228.5	1,538.6
1970	233.0	28.0	73.3	167.3	104.4	346.4	61.9	269.8	96.8	249.5	1,630.4
1972	230.5	28.2	82.1	173.4	104.9	360.2	66.0	292.1	98.9	254.2	1,690.5
1973	239.0	29.4	90.3	183.8	109.9	382.3	72.1	299.3	99.7	260.0	1,755.8
1974	235.0	33.8	95.1	186.9	114.2	398.6	76.2	311.3	101.5	266.7	1,817.3
SECTOR EMPLOYMENT AS A PERCENT OF TOTAL EMPLOYMENT OLD WEST REGION AND NATION											
Old West Region											
1950	31.9	1.9	4.8	8.3	8.7	18.6	2.8	10.5	4.1	8.3	100.0
1959	23.1	2.0	5.6	9.6	7.8	19.5	3.6	12.6	5.2	11.1	100.0
1962	21.4	1.7	5.9	9.8	7.3	19.5	3.8	13.2	5.8	11.7	100.0
1968	15.2	1.7	4.5	10.3	6.5	20.8	3.7	16.5	6.3	14.6	100.0
1970	14.3	1.7	4.5	10.3	6.4	21.2	3.8	16.6	5.9	15.3	100.0
1972	13.6	1.7	4.9	10.3	6.2	21.3	3.9	17.3	5.9	15.0	100.0
1973	13.5	1.7	5.1	10.4	6.2	21.7	4.1	17.0	5.7	14.7	100.0
1974	12.6	1.9	5.2	10.3	6.3	21.9	4.2	17.1	5.6	14.7	100.0
United States											
1950	10.7	1.7	4.5	29.1	7.7	17.9	3.7	10.3	3.7	7.8	100.0
1959	9.5	1.2	5.0	28.3	6.8	18.9	4.4	12.1	3.8	9.9	100.0
1962	8.2	1.1	4.8	27.8	6.5	19.1	4.6	13.3	3.9	10.8	100.0
1968	5.3	0.8	4.6	27.6	6.0	19.6	4.7	14.8	3.8	12.7	100.0
1970	4.7	0.8	4.8	26.0	6.1	20.2	5.0	15.6	3.7	13.2	100.0
1972	4.5	0.8	5.0	24.7	5.9	20.7	5.1	16.1	3.5	13.8	100.0
1973	4.3	0.8	5.0	25.0	5.8	20.8	5.1	16.2	3.3	13.8	100.0
1974	4.3	0.8	4.9	24.5	5.7	20.8	5.1	16.5	3.3	14.1	100.0

¹ Includes military.

² May not add due to rounding.

Table 5

EMPLOYMENT
ANNUAL GROWTH RATES BY SECTOR
OLD WEST REGION AND NATION
SELECTED PERIODS 1950-1974
(in percent)

	Agriculture	Mining	Contract Construction	Manufacturing	Transport. Comm. & Utilities	Wholesale & Retail Trade	Finance Insurance & Real Estate	Services	Federal Gov't	State & Local Gov't	Total
<u>Old West Region</u>											
1950-1959	-3.2	0.6	2.0	2.1	-0.4	0.9	3.1	2.4	2.9	3.6	0.4
1960-1969	-3.1	0.1	0.6	1.9	-0.6	2.1	1.8	3.9	2.6	4.3	1.3
1970-1973	0.0	4.6	6.7	2.8	2.3	3.6	5.3	3.6	1.2	1.7	2.7
1950-1974	-2.6	1.1	1.6	2.1	-0.2	1.9	2.9	3.3	2.5	3.6	1.2
<u>United States</u>											
1950-1959	-2.8	-2.3	2.7	1.0	-0.1	1.9	3.4	3.2	1.6	4.0	1.3
1960-1969	-4.2	-1.5	1.6	1.4	1.1	2.8	3.3	4.5	1.9	4.8	2.1
1970-1974	0.2	1.9	3.0	0.9	1.1	3.1	3.1	3.8	-0.1	4.1	2.4
1950-1974	-3.0	-1.2	2.3	1.1	0.6	2.5	3.3	3.9	1.5	4.4	1.9

Turning first to potentials, the Region shows economic promise in attaining higher levels of output and earnings in agriculture, food processing, mining of non-fuel minerals, mining of fuels, fuel processing, manufacturing, tourism, and forestry. Other advantages or potentials include the availability of excess power output, and a labor force with relatively high educational attainment levels and skill levels. These advantages have been major elements in attracting the larger industrial employers in the Region. In addition, the Region has a highly mobile job-seeking labor force, and is also characterized generally as a clean environment, an area with substantial land resources, numerous natural attractions, an abundance of water in certain locations, adequate transportation, and high public investment on a per capita basis.

There are problems in the Region that are subject to little or no control over the next 10 years, and other problems which could at least be partially controlled. Among the former are:

1. the population distribution and size;
2. distance from markets;
3. availability and costs of fuel and fertilizer;
4. the lack of transportation focal or interchange points; and
5. price instability in agricultural products, uranium, and copper.

Low per capita personal income in the Region, resulting largely from low earnings per job, is a primary problem in the Region. Generally low farm earnings (per job) are partly responsible for this condition. Improvement in job earnings is subject to some control given the resource potential of the Region. Other problems in the Region which are subject to change or improvement include the lack of:

1. water at particular locations;
2. technical or industrially oriented vocational schools to provide skill training necessary for higher paying jobs in growth industries of the Region;
3. adequate vacant housing to support general economic development and growth;
4. public investment or community facilities in potential high growth communities; and
5. sufficient numbers of physicians and public expenditures for health facilities and hospitals.

In addition, looking only at the private sector, the larger private firms in the Region finance growth via parent corporations outside the Region or from retained earnings. In the former case, key decisions are not made by institutions with a self-interest in the Region, in the latter continued economic growth is necessary to finance investments.

Additional funds for private capital formation would overcome much of this problem. Also, two issues appear key to future private investment and locational decisions:

1. the quality of the labor force; and
2. environmental concerns.

The former focuses on the attitude and aptitude of the labor force, and the private sector is concerned about the future. Environmental issues are receiving much publicity in and outside the Region. The private sector and public-at-large are very concerned about the future. There is a great deal of conflict, but no real dialogue between environmentalists on the one hand or the private sector on the other on how to achieve (or approach) mutual goals. In addition, employer questionnaires reflect dissatisfaction with the degree of inter-governmental coordination achieved in the Region. Such coordination could have positive impacts on the public generally and on improving the dialogue between various groups or parties in the Region.

Figure 2 summarizes some of the more apparent linkages between economic activity potentials and relatively controllable versus uncontrollable (during the next 5 to 10 years) problem areas.

Problem Areas

Economic Activity Potentials	Relatively Uncontrollable					Somewhat Controllable				
	Population Distribution	Distance From Markets	Cost and Avail. of Fuel and Fertilizer	No Regl. Transp. Focal Point	Price Instability	Private Capital Financing	Water Supplies	Labor Skills	Public Investment	Environmental Impacts
Agriculture			X		X	X	X		X	X
Food Processing	X	X		X		X		X	X	X
Mining Fuels					X			X	X	X
Fuel Processing				X			X	X	X	X
Manufacturing	X	X		X		X		X	X	X
Other Mining					X			X		X
Tourism		X	X	X		X			X	
Forestry					X					X

Figure 2

Interrelationships of Potentials to Problems

Note: "X" indicates more obvious linkages.

4.0 PROJECTIONS OF THE REGIONAL ECONOMY

This section presents results of the projections (to 1985) of the regional economy. Included are abridgements of the 1) economic and population projections, 2) environmental projections, and 3) projected community facilities, land and water requirements of energy-related activities.

4.1 Economic and Population Projections

Economic and population projections were made to 1985 for the Region, each State and the 18 sub-State areas (see Figure 1).

An initial projection of the regional economy was made using OBERS data obtained from the Bureau of Economic Analysis, U.S. Department of Commerce. This projection was published in 1972 using 1970 and 1971 data. Therefore, the projection excludes potential energy and other major developments which now appear likely to occur in the 1975-1985 period. Adjustments were only made to account for expected changes in agriculture and manufacturing, and to change the base year from 1970/1971 to 1974. This adjusted OBERS projection excludes expected energy-related developments beyond 1974. The results of this projection are shown in Tables 6 and 7. In summary, this projection indicates the following:

1. Employment ("work force" definition) in the Region would increase to 2.09 million in 1985. During the 1970-1985 period, this would amount to a growth rate of 1.7 percent per year, compared to an expected 1.6 percent per year for the nation.
2. Population in the Region would total 4.19 million in 1985. The annual growth rate in the 1970-1985 period would be 0.6 percent per year. This compares with a projected annual growth rate for the nation of 0.9 percent.
3. A net in-migration to the Region of about 20 thousand persons would occur in the 1970-1985 period. Since in-migration during 1970 through 1974 was estimated to be 50 thousand persons, a net out-migration of 30 thousand persons would occur from 1975 through 1985.
4. Total personal income (in 1967 dollars) is projected to increase in the Region to \$20.7 billion by 1985, or at an annual rate of 3.7 percent for the 1970-1985 period. The rate of increase for the nation during this period is projected at 4.0 percent per year.

Table 6
SUMMARY OF ECONOMIC AND POPULATION CHARACTERISTICS
ADJUSTED OBERS BASELINE PROJECTION
OLD WEST REGION
1985

Area	Employment (in thousands)		Population (in thousands)	Net Migration (in thousands)	Personal Income (in millions of 1967 dollars)	Per Capita Personal Income (in 1967 dollars)
	1985	1985				
Old West Region	2,088.4	1,926.2	4,185.0	22.5	\$20,698.7	\$4,950
Montana	353.3	337.0	739.8	-24.3	3,549.4	4,800
Northeast	124.6	118.9	260.4	- 9.4	1,300.1	4,990
Southeast	114.8	109.4	239.0	0.8	1,115.3	4,670
West	113.9	108.7	240.4	-15.7	1,134.0	4,720
Nebraska	841.1	774.2	1,649.3	34.4	8,699.6	5,270
Central	161.4	148.5	321.7	- 7.5	1,723.7	5,360
East (Omaha)	349.2	321.4	675.8	49.9	3,636.3	5,380
Northeast	105.1	96.8	210.3	-14.7	1,063.2	5,060
Southeast	182.6	168.1	356.0	23.0	1,848.6	5,190
West (Panhandle)	42.8	39.4	85.5	-16.3	427.8	5,000
North Dakota	317.1	275.8	624.0	-59.7	2,907.1	4,660
Northeast	73.0	63.6	142.8	-17.3	686.0	4,800
Northwest	59.3	51.6	118.6	-28.1	490.1	4,130
Southeast	106.8	92.9	208.5	- 4.3	1,014.8	4,870
Southwest	78.0	67.8	154.1	-10.0	716.2	4,650
South Dakota	367.4	347.0	760.1	31.0	3,433.5	4,520
Northeast	111.7	105.6	231.9	4.9	986.4	4,250
Southeast	131.8	124.4	273.2	8.6	1,217.6	4,460
West	123.9	117.0	255.0	17.5	1,229.5	4,820
Wyoming	209.3	192.2	411.8	41.1	2,109.1	5,120
East	148.6	136.5	292.5	13.2	1,480.2	5,060
Northwest	28.7	26.3	56.8	7.5	263.1	4,630
Southwest	32.0	29.4	62.5	20.4	365.8	5,850

Table 7

SELECTED ECONOMIC AND POPULATION CHARACTERISTICS
 ANNUAL RATE OF CHANGE
 ADJUSTED OBER'S BASELINE PROJECTION
 OLD WEST REGION AND NATION
 1970-1985

(in percent)

<u>Area</u>	<u>Employment</u>	<u>Population</u>	<u>Personal Income (in 1967 dollars)</u>	<u>Per Capita Personal Income (in 1967 dollars)</u>
Region	1.7	0.6	3.7	3.1
Montana	1.6	0.4	3.4	3.0
Northeast	1.3	0.4	3.1	2.7
Southeast	1.8	0.7	3.5	2.8
West	1.8	0.1	3.7	3.6
Nebraska	1.6	0.6	3.7	3.0
Central	1.2	0.2	3.4	3.2
East	2.0	1.3	3.8	2.5
Northeast	1.2	-0.1	3.8	3.9
Southeast	1.8	0.9	3.7	2.8
West	0.3	-0.7	3.0	3.7
North Dakota	1.4	0.1	3.5	3.4
Northeast	1.2	-0.1	3.4	3.5
Northwest	0.5	-0.6	2.4	3.1
Southeast	1.6	0.4	3.6	3.2
Southwest	2.1	0.3	4.3	4.0
South Dakota	1.8	0.9	4.2	3.3
Northeast	1.4	0.6	3.7	3.1
Southeast	1.5	0.7	3.7	3.0
West	2.4	1.3	5.2	3.8
Wyoming	2.4	1.4	4.3	2.8
East	2.1	1.0	3.9	2.8
Northwest	2.0	1.5	3.4	1.9
Southwest	4.2	3.4	7.0	3.5
United States	1.6	0.9	4.0	3.0

5. In 1985, per capita personal income (in 1967 dollars) would rise to a level of \$4,950 in the Region versus \$5,400 in the nation. In the 1970-1985 period the annual growth rate would be 3.1 percent for the Region and 3.0 percent for the nation. By 1985, per capita income in the Region would be 91.7 percent of the national level.

In addition, the projected changes in State and sub-State areas vary substantially with regard to employment, population and personal income. However, assuming the adjusted OBERS projection, only one of the 18 sub-State areas would have a per capita income level above the nation's in 1985.

Additional projections were made to take into account potential energy developments, and several other less significant developments, beyond 1974. Three alternative projections (i.e., expected baseline, low estimate alternative, and high estimate alternative) were made to 1985 taking into account energy development activities which could be influenced somewhat by the several States in the Region. Results are presented in Tables 8 and 9 for the expected baseline projection, or the "best estimate" of what is likely to occur assuming present national and regional conditions and trends.

1. Employment ("work force" definition) in the Region is expected to grow to 2.16 million in 1985 (or 1.9 percent annually for the 1970-1985 period). Consequently, about 70 thousand more jobs are expected in the Region largely as a result of energy-related developments. About 60 thousand of these jobs would be concentrated in four sub-State areas: Southeast Montana, Southwest North Dakota, and East and Southwest Wyoming. These areas are expected to contain most of the future energy developments.
2. Region population is expected, in this case, to reach 4.31 million in 1985 (or an increase of 0.8 percent annually for 1970-1985); or about 123 thousand persons higher than without additional energy-related developments beyond 1974. Of these, 106 thousand persons (85 percent) are expected to reside in the four sub-State areas dominating energy growth. Consequently, these four areas will have to accommodate (from net in-migration) 106 thousand more persons than what would normally be expected in 1985 (i.e., without energy-related activities beyond 1974).

Table 8

SUMMARY OF ECONOMIC AND POPULATION CHARACTERISTICS
EXPECTED BASELINE
OLD WEST REGION
1985

Area	<u>Employment (in thousands)</u>		<u>Population (in thousands)</u>	<u>Net Migration (in thousands)</u>	<u>Personal Income (in millions of 1967 dollars)</u>	<u>Per Capita Personal Income (in 1967 dollars)</u>
	<u>1985</u>	<u>1985</u>	<u>1985</u>	<u>1970-1985</u>	<u>1985</u>	<u>1985</u>
Old West Region	2,157.0	1,988.6	4,307.7	145.2	21,460.8	\$4,980
Montana	361.9	345.2	755.9	- 8.2	3,647.8	4,830
Northeast	124.6	118.9	260.4	- 9.4	1,300.1	4,990
Southeast	123.4	117.6	255.1	16.9	1,213.7	4,760
West	113.9	108.7	240.4	-15.7	1,134.0	4,720
Nebraska	845.3	778.0	1,656.8	41.9	8,750.3	5,280
Central	164.5	151.3	327.2	- 2.0	1,761.5	5,380
East	350.3	322.4	677.8	51.0	3,699.2	5,380
Northeast	105.1	96.8	210.3	-14.7	1,063.2	5,060
Southeast	182.6	168.1	356.0	23.0	1,848.6	5,190
West	42.8	39.4	85.5	-16.3	427.8	5,000
North Dakota	336.2	292.5	656.9	-26.8	3,097.5	4,720
Northeast	74.0	64.4	144.6	-15.5	694.9	4,810
Northwest	60.8	52.9	121.2	-25.5	503.0	4,150
Southeast	107.5	93.5	209.7	- 3.1	1,021.8	4,870
Southwest	93.9	81.7	181.4	17.3	877.8	4,840
South Dakota	369.7	349.1	764.2	35.1	3,463.6	4,530
Northeast	114.0	107.7	236.0	9.0	1,016.5	4,310
Southeast	131.8	124.4	273.2	8.6	1,217.6	4,460
West	123.9	117.0	255.0	17.5	1,229.5	4,820
Wyoming	243.7	223.8	473.9	103.2	2,501.6	5,280
East	171.1	157.2	333.1	53.8	1,731.9	5,200
Northwest	28.7	26.3	56.8	7.5	263.1	4,630
Southwest	43.9	40.3	84.0	41.9	506.6	6,030

Table 9

ECONOMIC AND POPULATION CHARACTERISTICS
ANNUAL RATE OF CHANGE
EXPECTED BASELINE
OLD WEST REGION AND NATION
1970-1985
(in percent)

<u>Area</u>	<u>Employment</u>	<u>Population</u>	<u>Personal Income (in 1967 dollars)</u>	<u>Per Capita Personal Income (in 1967 dollars)</u>
Region	1.9	0.8	4.0	3.2
Montana	1.8	0.5	3.6	3.0
Northeast	1.3	0.4	3.1	2.7
Southeast	2.3	1.1	4.0	2.9
West	1.8	0.1	3.7	3.6
Nebraska	1.6	0.7	3.7	3.0
Central	1.3	0.3	3.5	3.3
East	2.0	1.3	3.9	2.5
Northeast	1.2	-0.1	3.8	3.9
Southeast	1.8	0.9	3.7	2.8
West	0.3	-0.7	3.0	3.7
North Dakota	1.8	0.4	4.0	3.5
Northeast	1.3	0.1	3.5	3.5
Northwest	0.7	-0.5	2.6	3.1
Southeast	1.6	0.4	3.7	3.2
Southwest	3.4	1.4	5.7	4.3
South Dakota	1.8	0.9	4.3	3.3
Northeast	1.6	0.7	3.9	3.2
Southeast	1.5	0.7	3.7	3.0
West	2.4	1.3	5.2	3.8
Wyoming	3.4	2.4	5.5	3.0
East	3.1	1.9	5.0	3.0
Northwest	2.0	1.5	3.5	1.9
Southwest	6.4	5.4	9.3	3.7
United States	1.6	0.9	4.0	3.0

3. Total personal income (in 1967 dollars) in the Region would achieve an estimated \$21.5 billion in 1985 (or a growth of 4.0 percent per year between 1970 and 1985). This is about \$0.8 billion more as a result of energy-related activities. About 86 percent of this increase would be concentrated in the above four sub-State areas.
4. Per capita personal income (in 1967 dollars) in the Region would reach \$4,980 in 1985, or less than one percent higher than without additional energy developments. Regional per capita income would be 92.2 percent of the projected national level. However, in the four sub-State areas with major energy developments the increases in per capita income are higher, rising on average about 3 percent or in absolute terms \$100 to \$200 (in 1967 dollars) per person.

Expected energy related developments between 1975 and 1985 will bring substantial increases in employment and total personal income, especially in four sub-State areas. These developments will also increase populations, and significant net in-migration will result. While per capita income in these four sub-State areas will be somewhat larger, per capita income in the Region and most of the sub-State areas will not be affected greatly. Only one of the 18 sub-State areas is expected to have a per capita income in excess of the projected U.S. level of \$5,400 (in 1967 dollars); and 6 of the sub-State areas are expected to be below \$4,800 (in 1967 dollars) per person.

4.2 Environmental Projections

Regional environmental quality is not likely to deteriorate substantially due to increased economic change through 1985. The environmental impact of energy development is expected to be tightly controlled through existing Federal and State regulations. Furthermore, energy-related pollutants will be overshadowed by other sources of pollution for which there are limited control measures. The exception to this outlook is nitrogen oxides air pollution which shows a substantial rise due to a lack of current control measures and an increasing number of energy related sources of this pollutant.

These predictions, however, must be viewed in the context of certain limitations in this study. The projection of environmental conditions was performed on a Region-wide basis, thereby diffusing important but localized problems. The projections were also made on a few select air and surface water pollutants -- sulfur oxides and suspended particulates for air and biological oxygen demand and suspended solids for

water. These pollutants were considered the most important pollutants in those media and used as surrogates for other pollutants. This limited analysis has the tendency to obscure the effect of development on other environmental disturbances such as the generation of highly toxic pollutants (e.g., those elements from coal extraction and conversion) in isolated localized areas. Finally, due to the lack of monitoring data and meteorological and hydrologic models, it was not possible to predict ambient environmental conditions from pollutant emission sources.

Water quality in the Region is dominated by agricultural activity and natural phenomena which are subject to very limited controls through soil conservation and land use practices. For the industrial and domestic/commercial activities, water pollution will be tightly controlled through Federal regulations and State permits. The combination of agricultural dominance and efficient controls on other sources of waterborne pollutants results in almost no change in calculated emissions projected between 1973 levels and 1985 levels as a result of alternative economic and energy related projections.

Ambient regional air quality is expected to improve by 1985 with the exception of nitrogen oxides pollution. The improvement will result from tight Federal and State control measures currently in existence and required for all new point sources of air pollution, including energy-related sources. The nitrogen oxides pollution will increase in certain areas of the Region. These areas include: Southeast Montana, Southwest North Dakota, and East and Southwest Wyoming. This increase is due largely to projected energy-related developments and the lack of existing control measures for nitrogen oxides pollution. It is difficult to provide a quantitative indication of the environmental degradation that will occur as a result of the predicted increases in nitrogen oxides emissions. To provide such an indication would require meteorological analysis of pollutant diffusion and chemical reactions to relate emissions to ambient concentrations with which to calibrate and compare results. The data sources for this type of analysis are not available. The Region is not unique in this problem. Many areas of the nation face the problem of trying to relate increasing nitrogen oxides emissions to environmental impacts. The dual questions of what should nitrogen oxides standards be and how should emissions be controlled are under intensive study by the Federal Government.

Capital and operation and maintenance costs of environmental control for publicly owned waste water treatment facilities are presented in the more lengthy document. Investments in publicly operated solid waste disposal facilities are insignificant when compared to these, and are omitted from this analysis. All other environmental control costs are borne by the private sector. The public costs show a substantial increase in needed investments over the current value of in-place treatment facilities to meet 1983 Federal water quality goals. Approximately \$700 million will be required through 1985 for capital investments and approximately \$20 million annually

for operation and maintenance of those facilities. An additional \$387 million in public capital investments is needed to correct the existing combined sewer problem that arises from storm water overflow. Investments for treatment plants and interceptor sewers are currently covered by 75 percent Federal construction grant funds from EPA; however, the connection of combined sewers and construction of new collector sewer systems are not currently being funded by EPA. The difference in public costs between the non-energy and energy development alternatives is very slight (approximately two percent) and reflects domestic wastes resulting from population increases.

The investments in treatment facilities are primarily to upgrade current waste treatment practices in order to meet 1983 water quality goals. The Federal Government has established secondary treatment as a uniform treatment standard for the nation. Therefore, the public investments are the funds needed to meet this level of treatment and, secondarily, to account for increases in urban population. The \$700 million sought by the Region represents 15 percent of a \$47 billion national need. The construction grants program administered by EPA is currently allocating state needs from an \$18 billion fund. Therefore, the chances of the Region receiving the entire amount requested are not assured. Public investment needs for the combined sewer problems are even less assured in terms of available Federal construction grants. However, both the upgrading of treatment facilities and the elimination of combined sewers would have a minor impact on the Region's water quality by comparison to agricultural and natural sources of pollution.

Further improvements in environmental quality can be achieved at the option of Government policymakers. A significant reduction in water pollution would occur if control measures are adopted for nonpoint sources. Such measures are difficult to quantify since most analyses have concentrated on point sources. One study indicates that sediment load (and other pollutants) from agricultural land could be reduced nationally by approximately 50 percent at an annual cost of \$2 or \$3 per acre. Soil conservation practices should be utilized throughout the Region in order to alleviate the problems of flooding, sedimentation and erosion. Soil conservation plans should include practices such as cover-cropping, terracing, strip-cropping, pasture management and minimum tillage, where appropriate; consideration should be given to the reforestation of marginal crop and pasture land. Air pollution can be improved by limiting fugitive dust and achieving additional controls on open burning. Additional controls over coal burning industrial, residential, and commercial sources should also be effective.

4.3 Projected Community Facility, Land and Water Requirements of Energy-Related Activities

Due largely to new energy-related developments, four sub-State areas in the Region (Southeast Montana, Southwest North Dakota, and East and Southwest, Wyoming) will need to absorb an estimated additional 106 thousand persons between 1975 and 1985 beyond what could be expected without these developments (i.e., the difference between "expected baseline" and "adjusted OBERS" population projections). The public capital cost to provide needed community facilities for these persons is estimated at \$245 million (in 1973 dollars). This assumes the development of new or expanded communities. If unplanned sprawl is allowed to occur these public costs could reach \$360 million (in 1973 dollars). Private investment costs, in either case, are estimated to be over \$1.3 billion (in 1973 dollars) to accommodate these additional persons. This includes the cost of housing and assumes all housing is privately financed.

For coal strip mining, coal-fed power and gasification plants, and community facilities, additional land requirements in the Region are estimated at 65 thousand acres between 1975 and 1985. This would probably result in only a limited impact on agricultural output. In 1985, the livestock and grain losses as a result of land requirements would amount to an estimated \$600 thousand (in 1972 prices and production levels). On the other hand, this determination of land requirements assumes careful, planned rehabilitation of strip-mined lands in the Region. Estimates are that such rehabilitation will require 5 to 10 years, and it is assumed that rehabilitation costs and other requirements would be placed on the private coal mining firms. The rehabilitation costs of strip mining during the 1975-1985 period are estimated at \$51 million (in 1973 dollars).

Additional annual water requirements for energy-related developments in the 1975-1985 period are estimated at 299 thousand acre-feet¹. It is expected that coal mining and any slurry pipeline companies¹ will rely on privately financed ground water supplies (some mines may build relatively small impoundments to catch surface runoff), and new or expanding communities will also obtain their water needs from ground water sources (costs accounted for in the above community development summary). The remaining surface water requirements (210 thousand acre-feet per year) could be provided via a publicly or privately financed conveyance system, requiring an estimated investment of about \$210 million (in 1973 prices). It appears that sufficient surplus surface waters are available in the Region's reservoirs to meet expected needs at least through 1985. However, this is not to say that certain institutional conditions referred to earlier will cease to be a problem in some instances of potential water transfer and use.

¹ At present a substantial debate exists on the construction and use of coal slurry pipelines in the Region. The debate includes economic, water resource, institutional/legal and other issues and potential constraints. Appendices G and L of the full-length document provide a detailed review of the energy and water projections.

The foregoing indicates that land and water resources needed to meet expected energy-related requirements between 1975 and 1985 are significant, but are not extremely high in comparison with their total availability. On the other hand, it should be underscored that the period under review is only 10 years. Once committed to a growth path, the long-term (to the year 2000 and after) resource requirements may be enormous. Consequently, continuous review and analysis of resources and other requirements and actions associated with all regional developments are essential.

5.0 OBJECTIVES AND GOALS

Projections of expected economic conditions in 1985 have been presented for the Old West Region, for each State, and for 18 sub-State areas covering the entire Region and defined specially for this study (see Figure 1). The results indicate that even when accounting for expected energy-related developments, the Region-wide per capita personal income level is likely to lag the national average. Also, consistent with historical trends, per capita personal income levels within certain of the 18 sub-State areas are expected to be substantially lower than the Region average. Those sub-State areas with the lowest per capita incomes are likely to participate little or not at all in expected energy developments.

Important, though, is the quality of life generally exhibited in the Region. The environment is relatively clean, and likely to remain so, at least for the next decade. There is an attachment to the rural plains and mountains, and to the more independent and hardy way-of-life, considered to be a part of this rural setting. The availability of health services in many rural areas may be limited, but educational attainment levels are generally very high, great mobility is displayed by the labor force, and there is a willingness to work earlier and later in life and in more than one job in order to increase earnings.

These regional statistical reviews, projections, resource surveys and other analyses, however, generally obscure the fact that the most serious economic problems in the Region exist among American Indians. No studies or projections are available which specifically focus on Indian people in the Region. However, in 1969/1970, Census data indicate that the per capita personal income level was about 25 percent of the national level, the unemployment rate was nearly four times the national rate, and the employment participation rate was 40 percent below the national rate. There is little reason to believe that the economic conditions generally among American Indians in the Region will be much improved by 1985. However, several of the Indian tribes located in areas with mineral resources may be able to better their economic position between now and 1985.

The overall objective of the Old West Regional Commission is to improve the general quality of human existence in the Region. This objective has several dimensions, including economic, environmental, social and other aspects. Based on the earlier projections and other analyses, the specific goals of the Old West Regional Commission are:

1. To increase per capita personal incomes in the 18 sub-State areas of the Region to about \$4,800 (in 1967 dollars) for the non-Indian population in 1985. This translates into a personal income increase of \$280 per capita in five projected deficit sub-State areas. Achievement of this goal would result in an

average 1985 per capita personal income level in all sub-State areas of the Region that is nearly 90 percent of the expected national average. Parity with the national per capita personal income level is not sought. For the Region, other existing quality of life factors are important, as long as per capita income levels are reasonable in comparison with the nation. In addition, this goal is not intended to preclude the inclusion of other low income localities (e.g., a county or multi-county area) throughout the Region from participating in future program activities. Further analysis and study of local conditions will isolate other economic problems to be resolved. Also, the intent (see Section 6.0) is to provide improved income producing opportunities throughout the Region, not only in low income areas, and then to link low paid or unemployed workers to these opportunities.

2. To increase per capita personal income among American Indian peoples in the Region by about \$350 (in 1967 dollars) above the expected 1985 level. Economic problems are especially severe in Indian areas. A direct approach is required to solve such difficulties and at the same time to strengthen the economic self-sufficiency of tribal groups. A \$350 (1967 dollars) increase in per capita income of Indian peoples above that expected by 1985 would begin to close the income gap among the Region's Indian population. The longer term goal of the Old West Regional Commission is for Indian people to achieve parity with per capita personal income levels in the Region.
3. To prevent serious potential dislocations or disruptions from occurring in the regional economy as a result of rapid energy-related developments. The intent is to foresee, plan, and assure that economic and social disparities are minimized and needed community, water conveyance, and other major public facilities are provided in order to preserve the quality of life of local communities.
4. To achieve the environmental quality implied in the Federal and State regulations for air and water pollution, and to maintain high quality areas. By law, certain air and water pollution conditions in the Region are to be controlled by 1985, resulting in expected

improvements to the environment. Region-wide enforcement of standards is essential to an improved environment. Continuous review of existing standards, especially in high quality areas, is also necessary to assess their adequacy. Equally important is the study and review of pollution problems where no standards exist. For example, the preparation, application and enforcement of standards and "best management practices" to land-related non-point sources (not currently covered by pollution control regulations) are needed because of their overwhelming contribution to regional pollution. Satisfactory land reclamation of strip-mined land is also essential to prevent degradation of the physical environment. Finally, it is important to continually strive for more and improved data with which to analyze the environmental conditions and refine pollution control measures.

5. To improve health services, especially in the more rural parts of the Region. Data analyses have shown the lack of physicians in the Region and the low level of public funding for health facilities and hospitals. Sparse population distributions and low income levels have been responsible for such conditions. Programs are needed to improve health delivery services in the Region.
6. To provide for increased citizen participation in the governmental decision-making process and to provide a forum for discussing regional issues. Regional planning will benefit from greater citizen participation in the goal-setting process and in the selecting of programs and projects to fulfill these goals. In addition, by providing a forum for discussing economic, environmental, social or other issues, a process will have been initiated for seeking regional responses to issues and regional solutions to particular problems.

6.0 GOAL ATTAINMENT STRATEGY

This section presents the overall proposed Commission strategy to achieve the foregoing goals. There are two parts to this section: 1) an analysis of cost to achieve Commission goals and explicit or implicit benefits, and 2) a proposed implementation strategy which contains an outline of recommended program elements to achieve these goals.

6.1 Cost Analysis

To increase per capita personal incomes above the expected 1985 level will require additional public and private capital expenditures beyond that expected in the Region between now and 1985. This capital is needed to increase personal income either by increasing labor productivity (i.e., raising average earnings per worker) or increasing employment levels. The latter would be satisfactory in areas like Indian reservations where employment participation levels are relatively low. But in other areas, employment "up-grading" (i.e., increasing the average earnings of workers) would be most suitable so as to avoid regional immigration that could result from increasing the number of jobs. On the other hand, there may also be opportunities to increase employment participation rates to even higher levels (e.g., among female workers) in the existing population so as to increase per capita incomes without affecting regional population and migration.

Table 10 provides an estimate of the total additional personal income requirements needed to raise the per capita personal incomes of non-Indians in all 18 sub-State areas to about \$4,800 (in 1967 dollars) by 1985. Table 10 indicates that after disaggregating the Indian population from the non-Indian population, it is expected that 5 of the 18 sub-State areas will have per capita personal income levels of less than \$4,800 (in 1967 dollars) in 1985. To raise these 5 sub-State areas (West Montana, Northwest North Dakota, Northeast and Southeast South Dakota, and Northwest Wyoming) to \$4,800 per capita (or an average increase of \$280, in 1967 dollars, per person in these areas) by 1985, total personal income needs are estimated at about \$260 million (in 1967 dollars). In addition, it is estimated that in 1985 the Region's Indian population will number about 110 thousand and that per capita personal incomes will remain at about 25 percent of the national level, or at \$1,350 (in 1967 dollars). An increase of \$350 (1967 dollars) per person amounts to a per capita annual increase of 5.3 percent in personal income among Indian peoples between 1975 and 1985, and compares with a projected 3.2 percent annual increase for the non-Indian population in the Region. Total personal income requirements to raise Indian per capita incomes in the Region

Table 10

TOTAL NON-INDIAN PERSONAL INCOME REQUIREMENTS
SUB-STATE AREAS LESS THAN \$4,800 (1967 dollars) PER CAPITA
OLD WEST REGION
1985

Area	Per Capita Personal Income (in 1967 dollars)		Estimated Non-Indian Population (in thousands)	Total Non-Indian Personal Income to Achieve \$4,800 (in millions of 1967 dollars)
	Total Population ¹	Of Non-Indian Population		
Montana				
Southeast	4,760	4,900	245.5	0
West	4,720	4,780	236.3	4.7
North Dakota				
Northwest	4,150	4,240	117.7	65.9
South Dakota				
Northeast	4,310	4,360	231.9	102.0
Southeast	4,460	4,510	269.1	78.0
Wyoming				
Northwest	4,630	4,630	56.8	9.7
Average ²	4,520	4,520 ³	Total 911.8 ³	260.3

1

From Table 8.

2

Average of the populations residing in all areas cited.

3

Excludes Southeast Montana.

by \$350 are estimated at about \$38.5 million (in 1967 dollars). Table 11 indicates that to raise non-Indian and Indian annual personal incomes by the amount desired by 1985 (i.e., almost \$300 million in 1967 dollars, and over \$450 million in 1975 dollars), would require an estimated additional (above what is expected) public and private investment of about \$1.8 billion (in 1975 dollars).¹ Public funds to meet investment requirements are placed at just over \$0.5 billion. This assumes that 25 percent is financed by public sources generally in the Region (consistent with historical data) and 50 percent is publicly financed in the capital and financially poor Indian areas.

Additional monies for manpower training exist beyond investment requirements. Such training is essential for the employment of under-employed or unemployed local populations and job up-grading. Assuming the need to train and up-grade about 5 thousand regional workers per year at \$2,000 each (for teachers, materials, etc.), the cost would be about \$10 million per year. In addition, special regional employee relocation, employment information and other (non-capital) employment services programs are expected to cost another \$3 million per year.

Section 4.3 has reviewed some of the capital cost requirements for avoiding potential dislocations in the Regional economy between 1975 and 1985 as a result of rapid energy-related developments. Estimates of public capital costs were presented to meet community facility needs to take into account increased production, employment and population as a result of expected energy-related developments. These activities represent a break in historical trends, and these proposed public investments provide an estimate of the "front-end" or advance capital requirements for preventing inefficiencies from occurring in the economy, and for protecting the health and welfare of impacted populations. Such capital requirements are needed to begin meeting immediate demands for local facilities. Section 4.3 indicated that the estimated capital costs for meeting community facility needs between 1975 and 1985 are \$245 million, in 1973 dollars. In terms of 1975 dollars, this translates into about \$290 million. This does not include other potential public assistance for housing or additional programs that the Commission may desire to participate in at a later date.²

¹ This assumes application of a regional "incremental capital output ratio" and its related "incremental capital earnings ratio". To the degree that such potential investments are made in Indian areas, the implied capital efficiencies are likely to be substantially diminished.

² Not included in this public cost analysis are expected needed investments in water conveyance facilities. The needed investments for the 1975-1985 period are estimated at \$210 million in 1973 prices (see Appendix L of the full-length report), or about \$248 million in 1975 prices. These are excluded here since it is unknown whether such facilities would be developed by public and/or private entities. Consequently, total public investment needs may be underestimated.

Table 11

CAPITAL REQUIREMENTS TO
INCREASE PER CAPITA PERSONAL INCOMES
OLD WEST REGION
1975-1985

	Personal Income Requirements (millions of 1967 dollars)	Earnings Requirements ³ (millions of 1975 dollars)	Total Capital Requirements ⁴ (millions of 1975 dollars)	Public Funds for Investment ⁵ (millions of 1975 dollars)
Sub-State Areas	260.3 ¹	395.7	1,571	392
Indian Areas	38.5	58.5	232	116
Total	298.8	454.2	1,803	508

1

From Table 10.

2

Price deflator for personal consumption expenditures: 1967 = 100.00, 1975 (Second Quarter) = 65.78, Bureau of Economic Analysis (BEA), U.S. Department of Commerce.

3

Based on earnings to personal income ratios for Old West Region obtained from BEA.

4

Assumes a regional "incremental capital earnings ratio" of 5.2, as calculated in Appendix M of the full-length report.

5

Assumes 50 percent funded by public sources in Indian areas, and 25 percent funded by public sources elsewhere as consistent with historical capital allocations.

To assist State and local (including tribal) agencies to 1) review and enforce existing and future environmental laws and standards; 2) determine the need for, and prepare and apply, additional laws, standards or management practices; and 3) assure satisfactory land reclamation and other land use activities, the Commission proposes to provide \$3 million per year in funds to these agencies. It is anticipated that such monies would be provided in the form of technical assistance, planning and demonstration project grants.

In the health area, little information is available for setting reasonable goals to be met by 1985 or for establishing the costs to achieve such goals. The health area is one which will be studied more intensively by the Commission to formulate specific programs and projects needed to improve rural health services. Section 6.2, however, begins to address health needs, and the Commission intends to establish a health technical assistance, planning and demonstration program to be funded at about a \$5 million per year level.

Monies for increasing citizen participation in the regional planning process and for providing a forum for review and discussion of regional issues would be provided from Commission technical, planning, and demonstration assistance funds. Kinds of programs to be funded are discussed in Section 6.2. Additional funds in the amount of \$3 million per year are designated in the plan for this and other types of assistance.

A summary of public costs to meet the various objectives and goals is provided in Table 12. In total, additional public costs amounting to about \$1.04 billion (in 1975 dollars) are required between 1975 and 1985, or about \$104 million annually.

6.2 Implementation Strategy

To achieve the Old West Region goals associated with increasing per capita incomes (i.e., Goal One and Goal Two), emphasis would be placed on 1) up-grading existing jobs in the Region and achieving higher labor productivity, 2) attracting new or expanding existing industries with relatively high employee productivity rates, and 3) increasing employment opportunities, especially in areas with low employment participation ratios (e.g., Indian areas), and other areas where employment participation ratios can be raised to even higher levels. A concomitant element in this process is the needed effort for linking unemployed and low paid persons to expanded or upgraded employment opportunities generated in the Region. In pursuing these goals, the Old West Region intends to take advantage of existing regional potentials and to resolve existing regional problems. This means taking advantage of the following kinds of potentials:

Table 12

SUMMARY OF PUBLIC COST ANALYSIS
RELATED TO REGION GOALS AND OBJECTIVES

	Public Costs (in millions of 1975 dollars) 1975-1985
Capital Requirements	
Sub-State Income Growth	392
Indian Income Growth	116
Related to Energy Developments	290
Employment Services Program	130
Environmental Program ¹	30
Health Program ¹	50
Other Technical, Planning, and Demonstration Assistance	30
Total	1,038

¹ Special technical, planning and demonstration assistance programs.

1) the availability of surplus electrical power; 2) high educational attainment levels in the population; 3) high mobility of the labor force; 4) the existence of mineral and agricultural resources; 5) the natural attractiveness of the Region and the existing tourism base; 6) the good quality of life, and usually low pollution levels; and 7) the generally adequate transportation system and water surpluses in some areas. On the other hand, problems to be overcome would include: 1) inadequate manpower training facilities and programs in many localities to meet the employment needs of growth industries with regional labor; 2) insufficient supplies of regional funds for private investment purposes; and 3) lack of water conveyance and distribution systems in some areas and other facilities to support more productive industries.

Consequently, in order to stimulate the desired increases in per capita personal income, the Old West Regional Commission would focus program efforts on developing the following kinds of facilities and other programs:

- Agricultural facilities, including irrigation, storage, marketing and other projects;
- Industrial/manufacturing facilities, including industrial/commercial parks and associated support (e.g., water, sewer, transport) facilities essential to the development and expansion of higher income industries;
- Tourism/recreation facilities, including needed support facilities;
- A business support loan program for the purchase of land and the erection of buildings to be used by a variety of businesses; for the financing of investment and working capital needs; and for providing other incentives to the private sector and other business operations in the Region;
- Educational facilities, including projects for teaching industrial skills needed to support energy-related and other industries; and for expanding professional schools and research centers to meet the demand for particular professional occupations and to attract economic activities;
- Transportation and other facilities to support overall regional development;
- Manpower training programs and other employment services to link low paid and unemployed persons in the Region with expanding employment opportunities.

In implementing this strategy, utilization would be made of existing electrical generating power surpluses in the Region. Every effort would be made to retain desirable portions of this surplus in the Region in order to upgrade jobs and attract expanding industries with high labor productivity. Existing urban centers (e.g., those in the eastern portion of the Region, such as Omaha, Lincoln, Fargo and Sioux Falls) and the primary energy growth areas (Southeast Montana, Southwest North Dakota, East and Southwest Wyoming) offer the best short-term (i.e., over the next 5 to 10 years) potentials for industrial growth. Through the use of various manpower training programs, an employee relocation program and other activities, efforts would be made to link needy persons with employment opportunities.

Table 13 provides details of the proposed 1975-1985 public investment assistance program for raising per capita incomes in the Region. This indicates very preliminary estimates of proposed funding levels by program type; and provides general descriptions, possible funding and coordinating agencies (especially at the Federal level), and potential project locations for each program type. Very specific details of program content, the selection of individual projects, and final determinations of funding levels would be provided as the plan is updated in the future. Table 14 provides similar preliminary details for the proposed public employment services program, which complements the proposed public investment program for per capita income growth in the Region.

For the 1975-1985 period, the proposed public investment assistance program for raising per capita incomes would be funded at a level of an estimated \$510 million (in 1975 dollars) and the proposed public employment services program would require an estimated \$130 million (in 1975 dollars). Of these public funds, about 80 percent would be provided by Federal sources and 20 percent from State and local sources. However, 100 percent Federal funding in Indian areas is proposed. On the Federal side, it is proposed that special legislation be considered to furnish additional monies to the specific agencies (see Tables 13 and 14) concerned with program implementation and earmarked for use only in the Old West Region. Monies would be provided to specific programs or projects through existing categorical grant-in-aid, revenue sharing, block-grant or other mechanisms, whichever is appropriate to the utilization of Federal agency funds for a particular activity. Where no Federal mechanism or program exists to fund a particular activity, it is assumed that the Old West Regional Commission would be the source of Federal monies. In addition, the Commission would be a source of supplemental grant-in-aid financing of up to 80 percent of project cost.

Table 13

PROPOSED PUBLIC INVESTMENT ASSISTANCE PROGRAM
FOR PER CAPITA INCOME GROWTH
OLD WEST REGION
1975 - 1985

Program Area	Proposed Preliminary Funding Level (in 1975 dollars)	General Program Description	Funding and Coordinating Public Agencies	Project Locations
Agricultural Facilities	\$ 75 million	Program emphasis would be placed on the development of irrigation facilities, storage and marketing facilities and other facilities designed to increase productivity and earnings associated with agricultural employment.	Trunk-line water transport systems would be built and funded by the Bureau of Reclamation, Department of Interior, or the Corps of Engineers. Irrigation distribution systems and other facilities would be built by local agencies, tribes, districts, cooperatives, etc., with Federal grant-in-aid assistance or loans (e.g., from Farmers Home Administration, U.S. Department of Agriculture); and with Old West Regional Commission supplemental grant-in-aid funding up to 80 percent of project cost. The Bureau of Indian Affairs would represent an additional source of funds.	Low income areas of the Region with substantial opportunities for expanding earnings of agricultural employment would receive funding priority. Special areas of interest would be Indian areas and West Montana, Northwest North Dakota, Northeast and Southeast South Dakota, and Northwest Wyoming.
Industrial/Manufacturing Facilities	\$100 million	This program would provide for the development of industrial/commercial support projects, including industrial parks and associated water, sewer or transport facilities needed to serve such parks. Priority would be given to the development of such support facilities for industries (e.g., manufacturing, agri-business, commercial business centers) which would diversify and enhance the regional economic base and generally raise worker earnings without being an environmental detriment. Parks would be developed in accordance with State and local environmental and land use controls.	In designated Economic Development Administration (EDA) areas projects would be funded with EDA grant-in-aid assistance, or loans; the Farmers Home Administration would represent another funding source. Grants would be supplemented up to 80 percent of project cost by the Old West Regional Commission. EDA allows up to 100 percent financing in all Indian areas. Special funds would also be allocated through the Old West Regional Commission to finance such facilities. Grants assistance would be provided up to 80 percent of facility cost.	Priority would be given to constructing facilities in areas with potential industrial/manufacturing growth. Opportunities would be sought in low-income areas, but major potentials are likely to be in other localities. Utilization would be made of the Region's excess electrical power generating capacity and use of manpower training, relocation and other employment services programs (see Table 14) to link Region's unemployed and low paid workers to these jobs. Special concern would be given to locating opportunities in Indian areas.
Tourism/Recreation Facilities	\$ 25 million	Water, sewer, road and other supporting facilities would be provided to tourism/recreation projects. Consideration would be given on a project-by-project basis to funding major income producing tourism facilities with public funds, and funding cultural facilities (e.g., fine arts centers) in the urban centers to improve urban living and attract additional public and private investment.	EDA, Bureau of Outdoor Recreation, Historical Preservation program and the Community Development Act (of the Department of Housing and Urban Development) provide mechanisms for such funding through grant-in-aid, loan, or block-grant programs. The Old West Regional Commission would supplement grant-in-aid programs up to 80 percent of facility cost.	Development of tourism facilities would occur in low income areas with existing and potential tourism activities (e.g., West Montana, Northwest Wyoming, Indian areas). Cultural facilities would enhance the Region's urban centers (e.g., cities in the eastern part of the Old West area) and complement proposed industrial and business support activities.

Table 13 (cont.)

Program Area	Proposed Preliminary Funding Level (in 1975 dollars)	General Program Description	Funding and Coordinating Public Agencies	Project Locations
Business Loan Program	\$100 million	<p>Several kinds of potential public programs are proposed to provide general support to businesses (including tribal and cooperative businesses, agricultural cooperatives and agri-businesses) for upgrading employment opportunities, and diversifying and generally enhancing the regional economy:</p> <ul style="list-style-type: none"> • A program would be initiated for the construction of buildings and land utilization. Funds would be provided to designated State agencies, who would establish a revolving loan fund for the purchase of land and the erection of shell-type and other buildings for various business enterprises. States would loan monies to local entities (e.g., a Development Corporation) who would be responsible for program-implementation and the repayments of loans with interest. • A loan fund would be established to assist viable businesses in their growth efforts. This program would help existing and new industries finance critical investment and working capital needs. It is expected that loans would be made for up to 5 years. Funds would be provided by the Old West Regional Commission to appropriate State agencies who would be responsible for program operations. In addition, special industrial and tourism promotional projects would be instituted as part of this program to promote the economic and recreational advantages of the Region. Promotion of foreign investments in the Region and the overseas sales of Region products would form a part of the program. • Other potential programs could include establishment of a Regional Development Bank, a Loan Guarantee Program, or a variety of tax incentive policies (e.g., investment tax credits). However, these require additional evaluation and should be part of a total Regional Commission or national program for economic growth. 	<p>Funds would be provided through the Old West Regional Commission to appropriate State agencies having direct operational responsibility for program activities. The programs would be coordinated by the Old West Regional Commission with other Federal agencies (e.g., Small Business Administration, Bureau of Indian Affairs) as appropriate.</p>	<p>This would be a regional program to support business activities in areas with existing or potential investment opportunities. Prime locations in the Region for such support would include the energy growth areas and urban centers with an existing economic base for future growth. Care would be taken to effectively utilize the existing electrical power surplus in the Region. This program would be integrated with and complement other proposed program activities (see this Table and Tables 14 through 16) to link the Region's unemployed and low paid workers to jobs generated by this proposed business support effort.</p>

Table 13 (cont.)

Program Area	Proposed Preliminary Funding Level (in 1975 dollars)	General Program Description	Funding and Coordinating Public Agencies	Project Locations
Educational Facilities	\$100 million	Construction of facilities is proposed for the teaching of technical and vocational skills to regional residents so that they are prepared to participate in the current and future growth industries of the Region -- especially mining, energy-related industries, contract construction and manufacturing. In addition, funds would be provided to assist in construction or expansion of selected professional schools (e.g., human and veterinary medicine) and research centers at higher education institutions or other appropriate not-for-profit institutions. Projects would be selected based on expected economic and social contributions to the Region.	Department of Health, Education and Welfare has grant-in-aid authority (e.g., Vocational Education Act) for funding such educational facilities. The Old West Regional Commission would supplement such grant funding up to 80 percent of project cost. Bureau of Indian Affairs represents an additional funding source.	Technical/vocational education facilities would be constructed in areas lacking such facilities, but with actual employment growth in mining, energy-related industries, contract construction, manufacturing, etc. The four sub-State areas (Southeast Montana, Southwest North Dakota, and East and Southwest Wyoming) with the greatest potential for energy-related developments represent prime opportunities for such facilities. Also, Indian areas and other locations may require such facilities. Opportunities would be explored to train people in areas where they reside prior to migration or relocation to obtain employment. Professional schools and research centers would be expanded selectively, using existing institutions as a development base.
Transportation Facilities	\$ 50 million	To support future industrial and other developments resulting from the foregoing programs, it is expected that several major highway and airport projects will be required to achieve regional goals. These will likely be relatively major links in the regional transport system, and not merely supporting an individual facility or community.	Federal Highway Administration and the Federal Aviation Administration of the Department of Transportation have grant-in-aid authority for financing such facilities. Where appropriate, the Old West Regional Commission would supplement construction grants up to 80 percent of project costs.	As needed in the Region to support goals, other proposed programs, and general economic growth.
Other Facilities	\$ 60 million	Other supporting requirements to achieve regional goals are likely to include water, hospital or other facility investments.	Various grant-in-aid and revenue sharing programs are available in HEW and HUD. Bureau of Reclamation and Corps of Engineers also build such facilities. The Commission would supplement facility grants up to 80 percent of project costs.	As needed in the Region to support goals, other proposed programs, and general economic growth.

Table 14

PROPOSED PUBLIC EMPLOYMENT SERVICES ASSISTANCE PROGRAM
FOR PER CAPITA INCOME GROWTH
OLD WEST REGION
1975 - 1985

Program Type	Proposed Preliminary Funding Level (in 1975 dollars)	General Program Description	Funding and Coordinating Agencies	Program Locations
Manpower Training	\$100 million	<p>This proposed manpower training program recommends flexible utilization of a substantial amount of additional money to be made available through the Comprehensive Employment and Training Act (CETA) of 1973. These monies would be used to upgrade worker skills and to train persons for new and improved jobs in major growth, and more productive, industries in the Region -- especially mining, manufacturing, contract construction, certain service industries. Funds would be used to train workers for specific jobs and to provide incentives to employers to upgrade jobs or to hire under-employed or unemployed persons residing in the Region. This program would complement the proposed public investment assistance program (Table 13) by assuring that income and job opportunities generated by the investment program would go to low-paid and unemployed persons residing in the Region. Funds would be used for teacher salaries and equipment, on-the-job training, stipends, other incentives for employers, and other manpower training activities.</p>	<p>Department of Labor, Manpower Administration, Region VIII Office would administer and allocate these funds to State and local (e.g., tribes) Offices of Manpower as needed to achieve overall regional and manpower program goals.</p>	<p>Program funds would be made available for upgrading the occupational skills of the Region's residents so that they can obtain expanding employment opportunities in the Region (e.g., in energy development or urban-industrial areas). Special Manpower training programs would also be provided in Indian areas.</p>
Other Employment Services	\$ 30 million	<p>Other types of employment services are proposed in order to assist unemployed, under-employed and low-paid workers to obtain new or better jobs in the Region:</p> <ul style="list-style-type: none"> ● Establishment of a regional employment information system which would allow each State and local State Employment Service Office to be immediately aware of existing job opportunities in the Region. Special emphasis would be given to making advance determinations of job opportunities in energy-related industries and rapidly communicating actual job slots which are open, or are about to open, to State Employment Service Offices in the Region. 	<p>Programs would be administered by State Employment Security agencies (or tribes), and special funds would be provided by the U.S. Employment Service, Manpower Administration (Department of Labor) and the Old West Regional Commission.</p>	<p>These would be Regionwide programs; the relocation program would give priority to the transfer of low-paid and unemployed persons from low-income areas of the Region.</p>

Table 14 (cont.)

Program Type	Proposed Preliminary Funding Level (in 1975 dollars)	General Program Description	Funding and Coordinating Agencies	Program Locations
		<ul style="list-style-type: none"> ● A relocation program is proposed which would provide funds for 1) job recruitment and interviews, and 2) partial payment of the relocation costs of moving workers and their families to actual employment opportunities in the Region. ● A special program is recommended for younger persons about to enter the labor force, emphasizing types and areas of job opportunities in the Region and a description of programs available for upgrading skills. 		

To account for energy-related developments and thereby prevent serious disruptions in the regional economy (Goal Three), Table 15 describes the proposed 1975-1985 public investment assistance program for the Region. This program would be for community facilities and preliminary indications are that funds in the amount of about \$290 million (1975 dollars) would be required during the 1975 to 1985 period. This funding level, program description, possible funding and coordinating agencies and potential project locations as described in Table 15 are drawn directly from the analyses presented in the full-length study. The program would be carefully planned and administered, with every effort made to avoid over- or under-building, and achieve the maximum amount of flexibility in facility utilization. Again, it is proposed that monies for this assistance program be supplied through special legislation and provided via the appropriate existing mechanisms and agencies for spending in the Region. The proposed community facilities program would be about 80 percent funded by the Federal Government, with the remaining portion being provided from State and local sources. However, it is proposed that a substantial share of the Federal funds be provided on a loan basis.

To 1) improve environmental and health conditions (Goals Four and Five), 2) provide for increased citizen participation in the regional planning process and furnish a forum for discussing regional issues (Goal Six), and 3) improve the total regional planning process, including the delineation of specific programs and the selection of individual local projects to implement the regional growth strategy and achieve plan goals, Table 16 presents a description of a proposed technical, planning, and demonstration assistance program to be implemented by the Commission. To implement this program, it is proposed that \$110 million be provided (by special legislation) through the Old West Regional Commission during the 1975-1985 period.

Finally, Table 17 summarizes the proposed Old West Regional Commission Action Plan. For the period 1975-1985, a public expenditure program of approximately \$1.04 billion (in 1975 dollars) or about \$104 million per year is proposed for the Old West Region. These represent monies which are above and beyond current expected public outlays for the Region, and which are needed to achieve Region goals and objectives. Of the total proposed public assistance programs, \$800 million would be for investment purposes with \$510 million of this amount for improving personal income levels and \$290 million associated with projected energy-related community facility needs; another \$130 million would be for employment services associated with income growth goals of the Region; and \$110 million would be expended for technical, planning and demonstration assistance in environmental, health, and other fields related to improving regional planning and bringing the general public into the governmental decision-making process.

Table 15

PROPOSED PUBLIC INVESTMENT ASSISTANCE PROGRAM
TO ACCOMMODATE ENERGY-RELATED DEVELOPMENTS
OLD WEST REGION
1975 - 1985

Program Area	Proposed Preliminary Funding Level (in 1975 dollars)	General Program Description	Funding and Coordinating Public Agencies	Project Locations
Community Facilities	\$290 million	<p>Chapter XII and Appendix J outline community facility requirements to meet the needs of expanded populations resulting from job opportunities associated with energy-related developments. The proposed \$290 million community development program would be used to meet the "front-end" or advance capital costs of the following kinds of facilities, in the roughly approximated proportions shown: schools (60 percent), utilities (13 percent), streets and roads (9 percent), hospitals (8 percent), police and fire (4 percent), land (3 percent), open space (2 percent) and solid waste (less than 1 percent). It is assumed that expanded or new community developments would result from planned growth, otherwise costs of development could increase to \$360 million (in 1975 dollars). It is proposed that a special community development fund be established and that such facilities be financed by a combination of loans and grants to local communities or through the States to local communities. Loan repayments would be made from local tax monies which should in most cases be sufficient in later years to cover these initial capital costs and interests.</p>	<p>Funds might be provided through the Community Development Act (i.e., block-grant funds from HUD) or the Farmers Home Administration, and additional special funds would be provided to the Old West Regional Commission for Community Development in energy development areas. The New Community Development Act would be reviewed as a possible model for program implementation. HUD is no longer accepting applications for participation in the New Community Development program.</p>	<p>Assistance would be focused in major energy-related development areas. Analysis indicates that Southeast Montana, Southwest North Dakota, and East and Southwest Wyoming would be primary areas receiving program assistance. Wherever possible, attempts would be made to achieve economies of scale which can enhance the opportunities for future economic growth and development in the Region.</p>

Table 16

PROPOSED TECHNICAL, PLANNING AND DEMONSTRATION ASSISTANCE PROGRAM
OLD WEST REGION
1975 - 1985

Program Area	Proposed Preliminary Funding Level (in 1975 dollars)	General Program and Project Descriptions	
		The Old West Regional Commission proposes to provide annual grants to States and Indian tribes in the Region to allow for adequate enforcement of environmental and land reclamation laws; review of existing environmental and land use laws or standards; and preparation and application of additional environmental standards or management practices where needed. To support this effort a series of relevant research projects would also be funded by the Commission.	
Environmental Activities	\$ 30 million	<p>A program would be established for improving rural health services throughout the Region. The Old West Regional Commission would fund a variety of health projects, each of which would be coordinated with appropriate Federal (e.g., HRA and HSA in DHEW), State and local agencies. Example of projects include:</p> <ul style="list-style-type: none"> ● A study to formulate regional health goals, and a program design for achieving these goals along with an estimate of program costs. ● Paramedical training to complement the existing health service delivery system and to substitute for the current lack of physicians. ● Design of incentive programs and demonstration projects for attracting larger numbers of physicians. ● Design of effective transport systems for emergency health care. ● Development of mobile health centers to provide preventive care and diagnostic services. 	
Health Services Activities	\$ 50 million	<p>Other activities would be directed at increasing citizen participation in government decision-making, providing a forum for discussing regional issues, and generally improving the Commission planning process especially in the area of program and project selection for public financing. Examples of potential projects to be funded are listed below.</p> <ul style="list-style-type: none"> ● A series of State and local public meetings and programs could be held to begin assessing citizen choices and their views on the future of the Region and what changes and improvements should be sought. This would provide a means for integrating citizen views into the Commission's regional planning process, and the results would be utilized in setting regional goals and objectives. ● Sector studies and project evaluation or feasibility studies would be performed, with participation by local government entities. This would assist in making more definitive program and project recommendations for achieving regional goals, and would provide better estimates of cost and public funding requirements by agency. The kinds of studies that would be helpful in this analysis are: <ul style="list-style-type: none"> - A regional study of the manufacturing industry, including its future potential and needs. - Special emphasis would be placed on determining opportunities (and problems) in the energy-related industry, food-processing, and the agricultural and mining equipment manufacturing industries. 	
Other Activities	\$ 30 million		

Table 16 (cont.)

Program Area	Proposed Preliminary Funding Level (in 1975 dollars)	General Program and Project Descriptions
		<ul style="list-style-type: none"> - A more thorough study of private capital formation problems and potentials in the Region, and the design of policy and program recommendations as appropriate to resolve problems and take advantage of potentials. - A more thorough study of water supply, demand, and price structure in the Region. A designation of actual and potential local water problems, and needed future projects in relation to supply, demand, pricing and competitive issues. - An agricultural policy study designed to suggest and formulate possible procedures for stabilizing prices, increasing productivity, and eliminating certain environmental problems. - An evaluation of regional and local manpower supply and demand, with an analysis of current detailed skill traits in relation to existing and projected employment demand. The study should also survey current training facility capacities and utilization and make recommendations on specific present and future facility and training requirements. <p>• Continuous assessment will be made of how the Region's employment, population, income, environment and other characteristics or conditions are changing. Particular attention will be given to the impact of energy-related developments and their influence on these factors and conditions. It is essential that these be continuously monitored and plans be drawn to avoid detrimental impacts on the Region's population and socio-economic conditions.</p>

Table 17

SUMMARY OF PROPOSED PUBLIC
ASSISTANCE PROGRAMS
OLD WEST REGION
1975 - 1985

<u>Assistance Activity</u>	<u>Preliminary 1975-1985 Funding Level (in millions of 1975 dollars)</u>	
For Per Capita Income Growth		
Investment Assistance		
Agricultural Facilities	\$ 75	
Industrial/Manufacturing Facilities	100	
Tourism/Recreation Facilities	25	
Business Loan Program	100	
Educational Facilities	100	
Transportation Facilities	50	
Other Facilities	60	
	Subtotal	\$510
Employment Services Assistance		
Manpower Training	\$100	
Other Employment Services	30	
	Subtotal	\$130
Related to Energy Development		
Investment Assistance		
Community Facilities	\$290	
	Subtotal	\$290
Technical, Planning and Demonstration Assistance		
Environmental Activities	\$ 30	
Health Service Activities	50	
Other Activities	30	
	Subtotal	\$110
	Total	\$1,040

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